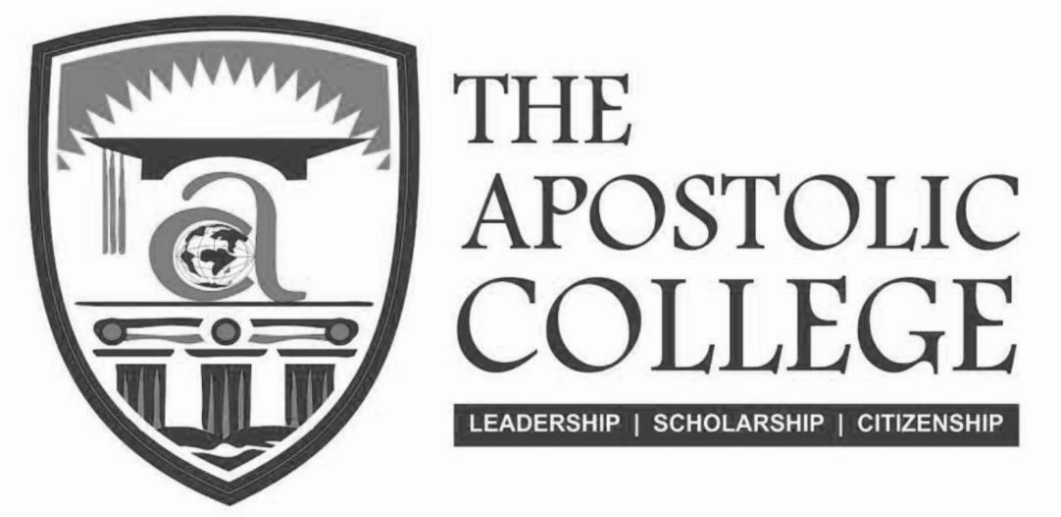

COURSE:

COMPUTER LITERACY

MODULE 3

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Chapter 1: Microsoft Office: Excel

Spreadsheets were originally developed for book keeping; however, they are also used for scientific calculations, data manipulation and for producing graphs. Excel includes some statistical functions, but for serious research work a specialised package such as SAS or SPSS should be used. Excel can also sort and select data subsets. For storing large amounts of data or more complex tasks, database software such as Microsoft Access should be used. These notes cover the fundamental usage of Excel but also include many hints and tips.

Starting Excel

To start up the program:

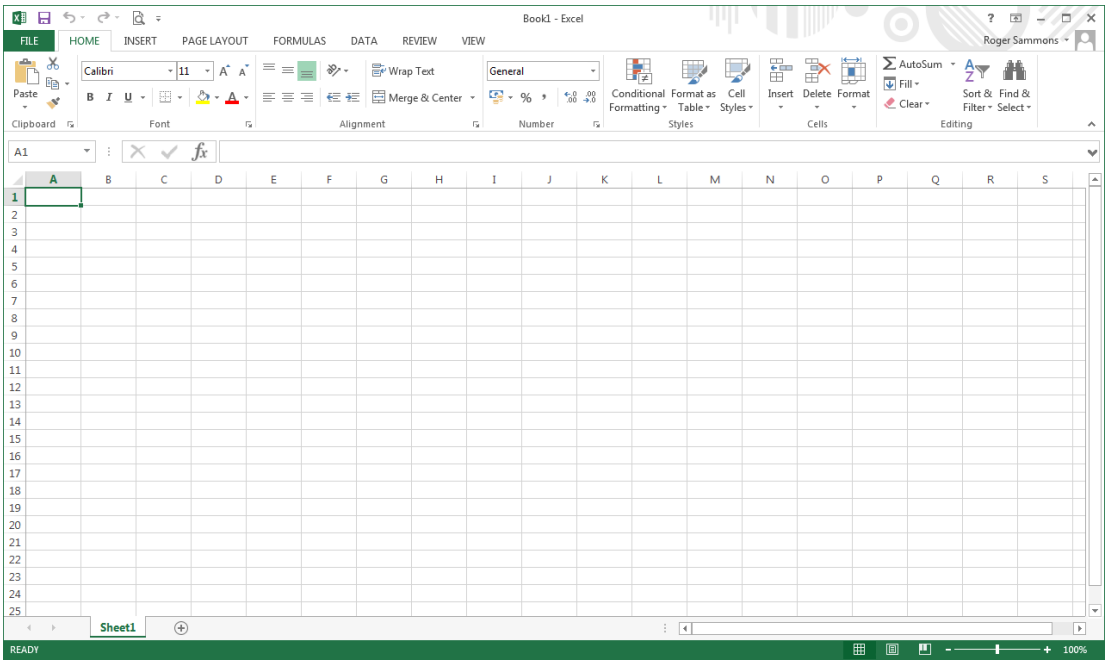
1. Click on the Windows **Start** button
2. Choose **All Programs** then **Microsoft Office 2013** followed by **Excel 2013**

Tip: To create a *shortcut* on the *Desktop*, right click on **Excel 2013** then choose **Send To** followed by **Desktop (create shortcut)**. You'll then be able to load Excel using the icon on the Desktop.

3. Press **<Enter>** for **Blank workbook** to start up a new session

The Excel Screen

You will then be presented with an empty worksheet, as below, ready to enter your data:



In the top left corner of the screen, the *Quick Access Toolbar* is shown. This has three buttons showing by default – **Save**, **Undo** and **Redo**. To add extra buttons:

1. Click on the down arrow on the right for **Customize Quick Access Toolbar**
2. Add **Print Preview and Print** and any other buttons you might require

Moving right, Excel has given your work a name, **Book1**, which can comprise a set of related data and chart sheets. This name will change when you save your work in a file, at which time you will be asked to supply a real name. On the far right are the usual **Help**, **Ribbon Display Options**, **Minimize**, **Maximize/Restore** and **Close** buttons.

The next section down the screen is called the *Ribbon*. This replaces the menu and toolbar system in earlier versions of Excel. All the commands now appear as *buttons* (pictures) on this *Ribbon*, which has a series of tabs under which different commands are grouped. When you point to a button, a *tool-tip* appears, telling you what that button does. From Excel 2010, a **FILE** tab has replaced the *Office Button*.

Below the *Ribbon* is the *Command Line*. The area on the left (showing the characters **A1**) is the *Name Box*. To its right is the *Formula Bar*, which shows you what information is stored in a cell.

The main body of the screen contains the worksheet. You are currently using **Sheet1** of *Book1*, as denoted by the *sheet tab* at the bottom. The worksheet has numbers down the side, denoting *rows*, and letters across the top denoting *columns*. Each intersection of a row and column is known as a *cell* and has a unique name. The cell in the top left corner is *A1* (the intersection of column *A* and row *1*) and is currently the *active cell*. This is denoted by a darker border, with its identity shown in the *Name Box*, while the column letter and row number are shown with a grey background. Any information you type is stored in the active cell.

Down the right of the screen is the *scroll bar*, which is used for moving up and down your work. A *horizontal scroll bar*, for moving left and right, appears to the right of the *sheet tabs*. The mouse cursor should also be visible. This can have several different shapes, some of which you will be meeting later in the course. Within the cells it appears as an outlined cross.

Getting Help

Help: 

As with all the other Microsoft Office software, a quick link to the help system is provided by the **[Microsoft Excel Help]** button on the right, above the *Ribbon* tabs. The **<F1>** key also loads the help system.

Moving Around the Worksheet

Various keys or key combinations can be used to move the *active cell* around the worksheet. These include **<Enter>**, **<Tab>**, **<Home>** and the **<*arrow*>** keys (take care that **<Scroll Lock>** is *not* turned on as this affects the arrow keys). You can also move directly to a cell using the mouse:

1. Using the mouse, point to any cell other than *A1*
2. Click the left mouse button to make this the active cell - note that the name of the cell in the *Name Box* has changed, as have the grey row/column indicators
3. Move the active cell around the screen - try pressing the **<*arrow*>** keys, **<Tab>** (and **<Shift Tab>**) and **<Enter>** (and **<Shift Enter>**), noting how they move the active cell around
4. End by making *A1* the active cell

Tip: Pressing **<Ctrl Home>** moves the active cell to cell *A1*. To move to the left edge of a block of data, hold down **<Ctrl>** and press an **<*arrow*>** key in the direction you wish to move. **<Ctrl Enter>** keeps the current cell the active cell – useful when entering data or editing a formula, as you will see later.

Saving your Work

Save: 

It is important to save your work frequently - you never know when the computer might fail!

1. Click on **[Save]** on the *Quick Access Toolbar* (or use **Save** from the **FILE** tab on the *Ribbon*) Up until

now your work has been known as *Book1*; you are now asked to give it a proper name.

2. Choose **My Documents** then type **test** into the *File name:* box

Note that the default drive is set to **My Documents** (on drive **N:** - your *home directory* on University Lab PCs). Avoid working directly from a USB memory stick or similar device; always copy your files to *My Documents*, work on them there and then copy back to the stick, when you have finished.

3. Press <**Enter**> or click on **[Save]** to carry out the save

Note that once the file has been saved, the new name (*test*) appears at the top of the screen.

Tip: Press <**Ctrl s**> every so often to save your file as you are working on it, thereby insuring you don't lose any changes you have made. <**Ctrl s**> is a shortcut key for the **Save** command.

Data Entry

Undo: 

Information can be entered into the active cell, either in the form of raw data or calculations. Excel recognises various sorts of data - text, numbers, dates and times - which can then be used in formulae. Before you begin typing, make sure you are at the top left corner, in cell *A1* (when following this course it is vital that you use the same cells as in the document).

1. In *A1*, type the word **Income** then press <***right arrow***> to move to *B1*

Income is recognised as text and is stored as such in *A1*. By default, text is shown on the left of a cell. Pressing <***right arrow***> completes the data entry and moves the active cell ready for the next item of data. If you need to correct a typing error, click on **[Undo]** on the *Quick Access Toolbar* or simply move back to the cell in question and retype the information.

2. In *B1*, enter **22000** then press <***down arrow***> to move down to *B2*

22000 is stored as an ordinary *number* - on which the spreadsheet can perform calculations. By default, numbers appear on the right of a cell.

3. Move back to *A2* (<***left arrow***>) and type **Costs** then move to *B2* (<***right arrow***>)
4. In *B2*, type **15000** then move to *A3* (<***down arrow***> then <***left arrow***>)
5. In *A3*, type **Profit** then move to *B3* (<***right arrow***>)

In cell *B3* you are going to store a *formula* to subtract costs from income. Note that formulas in Excel start with an equals (=) sign. As you type in a formula, any cell references are colour-coded to help you verify the correct cells are being used.

6. In *B3*, type **=B1-B2** (or **=b1-b2** - case doesn't matter) and press <**Enter**>

Tip: When entering a formula into a cell you can pick up the cell references by clicking on the cells required with the mouse. Here in *B3*, for example, you would type = then click on *B1* then type - before clicking on *B2* and pressing <**Enter**>. This is particularly useful when picking up cell references from other sheets. You can also use the *arrow keys* to select a cell reference – this is the easiest way to pick up a neighbouring cell.

You are now presented with the result of the calculation rather than the formula itself, namely 7000. Note, however, that though Excel displays the answer, it is the formula which is stored in the cell. Spreadsheets are designed to recalculate as they go along, so see what happens when you change one of the original numbers.

7. Move up to *B1* (press <***up arrow***> *three times*) and type **25000**
8. Watch as you press <**Enter**> and note that the *Profit* (in *B3*) is recalculated as 10000 The

formula =B1-B2 knows that *B1* has changed and the display in *B3* adjusts accordingly. Next extend

the example to bring tax into the calculations.

9. Change the text in *A3* - move to the cell and enter **Profit Before Tax** instead - press <**Enter**>

Tip: If you move to the cell and then press function key <**F2**>, you only need type the extra words.

You will find the text appears truncated (letters on the right are missing). Don't worry about this, the column will be widened later to show all the letters.

10. In cell *A4*, type **Tax** then move to *B4* (press **<*right arrow*>**)

Assume that tax is levied at 30% of Profit Before Tax; enter the following formula for this cell:

11. In *B4*, type **=B3*30%**(*don't forget the leading = sign*)

Note that Excel, in common with other computer software, uses an asterisk (*****) for multiplication and a slash (/) for division. Use the *numeric keypad* for convenient access to these characters (if you want to use the numbers too, make sure **<Num Lock>** is turned on).

12. Press **<Enter>** and the tax figure (3000) will be worked out for you
13. Work out a label and a formula to put in cells A5 and B5 to show the *Profit After Tax*, assuming that this is *Profit Before Tax* minus *Tax*

Tip: As you begin to type the word *Profit* in A5, Excel picks up *Profit Before Tax* from the list of entries above. This is very useful when you are typing the same information again and again – eg Travel, Accommodation, Food … on an expenses sheet. You don't need this information this time, but you could edit it (by *double clicking* on the word *Before* and typing *After* instead – press **<Tab>** to move to cell **B5**).

Note how the words in *A5* initially appear in full (they are only truncated when *B5* is filled). If you have got the formula right (follow the links or look at the Appendix to check your answers), the screen should look like this (***don't be tempted to cheat by typing in the value of 7000***):

	A	B	C	D	E	F
1	Income	25000				
2	Costs	15000				
3	Profit Bef	10000				
4	Tax	3000				
5	Profit Afte	7000				
6						
7						

Examining the Cell Contents

Often you want to view a formula rather than its result. You can examine an individual formula by making its cell the active cell. Move to cell *B5* and you will see =B3-B4 showing in the *Formula Bar*. This means that the content of the cell *B5* is the formula *B3-B4* and not *7000*, as displayed.

Move the active cell around and see what has been stored in each cell. Take this opportunity to make sure you understand what is happening.

You may be wondering why a small green triangle has appeared in the top left corner of cell *B4*. This is a warning indicator and implies there may be an error in a cell formula. The error here is *Inconsistent Formula*. This is because the formulae in *B3* and *B5* are essentially the same while that in *B4* is intentionally different. To view all the formulae:

1. Hold down the **<Ctrl>** key and type a <`> - the key in the top left corner, to the left of **<1>**
2. Once you have seen why Excel gave you the warning, press **<Ctrl `>** again to return to normal working

Try altering the *Income* or *Costs* figures in *B1* or *B2* and notice how the *Profit Before Tax*, *Tax* and *Profit After Tax* figures are updated automatically. Use the **[Undo]** button (or retype the data) to reset the values to **25000** and **15000** respectively.

Naming a Cell

Sometimes it is useful to reference a cell by name rather than by column and row. For example, the tax rate (of 30%) could be held in a cell named *taxrate* and then referred to as such in any formulae.

1. Move down to cell *A10* (ie well away from the rest of your work)

2. Click on the active cell name (A10) in the *Name Box* (just above the heading to column *A*) - the name will be highlighted
3. Type in the new name of **taxrate** (spaces aren't allowed in cell names) then press **<Enter>**
4. Now, in cell *A10*, type in **30%** and press **<Enter>**
5. Finally, amend the formula in cell *B4* to read **=B3*taxrate** then press **<Enter>**

The result doesn't change but you can now use *taxrate* whenever you want to calculate the tax. Incidentally, you can still also use *A10* to reference this cell, though this defeats the reason for giving a cell a special name.

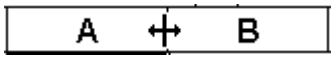
Tip: It's easier to edit a formula rather than retype it in the cell. Press function key **<F2>** to enter edit mode then use **<Backspace>** to delete the *30%*. Type in **taxrate** then press **<Enter>**. The *arrow keys* can be used to move the typing position along the formula, then press **<Enter>** or **<Tab>** to finish editing.

Commands

Sometimes it is necessary to issue a *command* to tell the program to do something to the worksheet, such as altering its layout or saving it. The commands are found on the *Ribbon*. This has several tabs, covering different aspects of use. Most of the commands used in this course are on the *HOME* tab.

Some commands are also available by clicking the *right button* on the mouse or through **<Ctrl>** key combinations, as shown by the tool tips which appear as you select a button on the *Ribbon*.

Changing Column Width



Before proceeding further, change the layout so there is enough room to fit the whole of *Profit Before Tax* into its column.

1. Move the mouse pointer onto the line between the letter *A* at the top of column A and *B* at the top of column B - the cursor becomes a double-headed arrow, as shown above
2. Hold down the mouse button and drag the column divider to the right - note that the current width is displayed as you move the divider (set the width to about 20.0 - 145 pixels)
3. Release the mouse button and the column is resized

Getting the column width right using this method can be very time consuming. To fit the column exactly to the data:

4. Move the mouse pointer to the dividing line between the column headings as before
5. *Double click* on the mouse button

Note: Column width can also be set via the **[Format]** button under *Cells* on the *HOME* tab of the *Ribbon*. Here, **Column Width…** lets you type in a fixed width while **AutoFit Column Width** is equivalent to *double-clicking* on the column border. When using *autofit*, the column must first be selected or the width of the current cell is used instead.

If cells contain numeric data and the column width becomes too narrow to display the numbers properly then Excel displays ####### instead. The first time you see this you will probably think an error has occurred, so it's useful to demonstrate it here:

6. Move the mouse pointer to the dividing line separating the column *B* and *C* headings
7. Hold down the mouse button and drag the divider to the left - set the width to less than 5.0
8. Release the mouse button and ####### should appear in some or all the cells
9. Press **<Ctrl z>** or use the **[Undo]** button to restore the column to its original width

Changing the Format

Accounting:  Percent:  Comma:  Increase Decimal:  Decrease Decimal: 

The way data in a cell is displayed can be set using a *format*. For example, a date could be shown as *25-12-14* or *25 Dec 14* or *25th December 2014* or in various other similar ways. The basic information held in the cell is identical, however; it's up to you how you want it displayed. In this next exercise, you will add a currency format to your data.

1. Change the Income figure in *B1* to **24444** then press **<Enter>**

The resulting Tax and Profit After Tax figures are now displayed with a single decimal place. This looks a bit untidy as the other figures have no decimal places. It would be neater if all the numbers were shown as a currency, either with two decimal places (pounds and pence) or as whole numbers (pounds only). To do this, you first have to select the cells (here, format the whole column).

2. Click once on the letter **B** at the top of the column - it is highlighted in grey (cell *B1* remains white) Five

commonly-used formats are provided in the *Number* group on the *HOME* tab of the *Ribbon*.

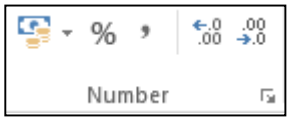
3. Click on the first formatting button for an **[Accounting]** style

What was 24444 should now be shown as £24,444.00. If ####### is displayed, widen the column.

4. To remove the decimal point and pence, click *twice* on the **[Decrease Decimal]** button on the right

The figures should now be displayed as whole numbers. Note that you have only changed the *display* format; formats don't affect the stored data or accuracy to which calculations are made.

IMPORTANT: When using Excel you should always think about how many decimal places should be shown. Here, it looks as though the *Income* and *Costs* figures are to the nearest thousand pounds so calculations showing pence are completely meaningless.



A wider range of cell formats is available via the **[Format Cells: Number]** button. This is shown as a small arrow to the right of the word *Number* (below **[Decrease Decimal]**). Try using this next:

5. Make sure column *B* is still selected
6. Click on the **[Number Format]** button (the small arrow in the bottom right corner of the group)
7. In the *Format Cells* window, change the *Category:* from **Custom** to **Currency**
8. Set the number of *Decimal places:* to **0** and choose a currency *Symbol:* (eg a Euro **€**)
9. Choose the last format for *Negative numbers:* **-€1234** in red
10. Press **<Enter>** or click on **[OK]** to apply the format

This produces much the same result as before except that the currency symbol is next to the figures while any negative values will appear in red (you'll see this later). Note that you can also display the *Format Cells* window by *right clicking* on a cell or selected range and choosing **Format Cells…**

11. Reduce the column width by *double clicking* on the dividing line between the column *B* and *C* headings

Format Painter: 

Columns *C*, *D*, *E* and *F* (which you will be using later) also need to be formatted similarly. The simplest way to do this is to copy the format from column *B* to the other columns.

12. Make sure column *B* is still selected
13. *Double click* on the **[Format Painter]** button on the far left of the **HOME** tab of the *Ribbon*

You will find that the block of cells have a moving boundary while the mouse cursor now has a little brush attached.

14. Click on each of the other column headings (ie **C** to **F**) in turn, or drag across them
15. Click on the **[Format Painter]** button again to turn it off (the brush and moving border disappear) Only

when you enter data into these cells will the new format become apparent.

16. Finally, using <*left arrow*>, move to *B1* and retype the original value of **25000** (press **<Enter>**)

Clearing a Format

Cell formats can sometimes cause confusion to the new Excel user. As an example:

1. Move to cell *A7* and type in **25/12**then press **<Enter>**

Because you forgot the equals sign denoting a calculation, Excel interprets this as a date.

2. Move back to *A7* and correct your mistake (type **=25/12** and press **<Enter>**)

You will find that the result is still translated into a date (Excel has assigned a date format to the cell). To display the information as a number you have to clear the format. To do this:

3. Click once on the **[Format Painter]** to pick up the format of cell *A8*
4. Now press **<*up-arrow*>** or click on cell *A7* (the format clears and the number is properly displayed)

Note that if you click on the **[Format Painter]** *once*, after you have copied the format to a single cell or range, the painter is automatically turned off. If you *double click* on it then the format painter remains active until you turn it off again. You can also clear a format via the **[Clear]** button in the *Editing* group on the right of the **HOME** tab of the *Ribbon*.

5. Finally, press **<Delete>** to empty the cell - the data isn't needed

Inserting Blank Rows and Columns

Next add a title to your work. Unfortunately, there is insufficient room at the top of the sheet for this so you will first have to insert some blank lines.

1. *Right click* on the row number **1** and choose **Insert** from the menu which appears
2. Repeat step **1** for a second blank row

Note: If you *right click* inside a cell, you can insert (or delete) either a single cell or the whole column/row. You can

also insert (or delete) a column by clicking on a column letter. Try this next:

3. *Right click* on the column letter **A** and choose **Insert** from the menu - a blank column *A* will be added

You don't actually need this column, so delete it:

4. *Right click* on the column letter **A** again but, this time, choose **Delete** from the popup menu

Tip: If you select several rows/columns you can insert/delete more than one at a time.

Inserting rows and columns may seem trivial, but Excel has to adjust any formulae to take account of the changes. For example, the *Profit Before Tax* formula in *B5* now says =B3-B4instead of =B1-B2. Had it not been changed it would of course be invalid, as B1 and B2 are now empty cells. Note also that though the *taxrate* has moved (to A12), it is still held in a cell named *taxrate*. This is one good reason for naming certain cells - you do not have to keep a list (that has to be updated each time you insert a row or column) of which cells hold which fixed values. Use **<Ctrl `>** if you want to inspect the formulae,

5. Finally, press **<*up*_arrow>** to release the selection and enter the title **Profit and Loss** in cell *A1*
   then press **<Ctrl Enter>** (this will keep the current cell as *A1*, ready for the next command)

Note that you can also insert and delete rows/columns using the **[Insert]** and **[Delete]** buttons in the *Cells* group on the right of the *HOME* tab on the *Ribbon*.

Changing the Style of Text

As in Microsoft Word, you can alter the font, font size and style of your data. For example, the title would look better if it was bigger and bolder.

1. Check that the current cell is still *A1*
2. Click on the **[Bold]** button (or press <**Ctrl b**>) - the text will become bold

Tip: If you want just part of the text in a cell to be bold/italic etc or a different font, then select the text on the *Formula Bar* and apply the format to that selection. You can also apply formatting as you type in any text. Now make the text larger and change the font.

3. Click on the *list arrow* to the right of the **[Font Size]** box and choose **14** (or use **[Increase Font Size]**)
4. Click on the *list arrow* to the right of the **[Font]** box and choose **Arial**

Note how the text changes automatically as you move up and down the list of font sizes and fonts. You can also *right click* on a cell for a floating copy of these buttons (instead of using the *Ribbon*).

Storing Numbers as Text

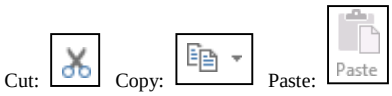
Next, extend the calculations over time. Imagine you want to project the profit and loss figures over a four year period, based on some simple assumptions about what is going to happen to income and costs. Firstly, you need some labels to show which year is which:

1. Move to cell *B2* and type **'2011** then move to *C2* (press <***right arrow***>)

Don't miss out the single quote (same key as **@**) at the beginning - this tells Excel that although *2011* looks like a number, it should be treated as text. This will prevent the year *2011* being displayed as *€2,011*, for example, as the display format for this cell is set to a currency. Another reason for entering numbers as text is that they aren't then included in calculations (for example, if you summed a column of figures).

2. Next type **'2012**, **'2013** and **'2014** into cells *C2*, *D2* and *E2*

The Copy Command



Assume that both income and costs will grow by 20% in *2012* from their *2011* figure.

1. Move to *C3* and enter **=B3*120%** - press <**Ctrl Enter**> to carry out the calculation but stay in the cell

Where one formula is essentially the same as another (except the calculation is being made in a different row or column), when you copy and paste it, Excel automatically adjusts it to account for its new position.
Assuming costs also rise by 20%, the formula for *C4* can be copied across from *C3*:

2. Check you are in cell *C3* then click on the **[Copy]** button (or press <**Ctrl c**> or *right click* and choose **Copy** from the popup menu) - the cell will be surrounded by a moving border
3. Move down to *C4* (press <***down arrow***>) then press <**Enter**> - note how the formula which was =B3*120% in *C3* has been modified to =B4*120%in *C4*

IMPORTANT: When pasting formulae in Excel, you don't have to use **Paste** at all. Instead, you move to the destination cell and press <**Enter**>. This completes the copy/paste process, turning off the moving border and removing the data from the *Clipboard*. If you use **Paste** then the moving border remains, indicating that you can **Paste** again (should you need to). Get used to using <**Enter**> for a single copy/paste and **Paste** for multiple ones (use <**Enter**> for the final paste – if you forget, press <**Esc**> to turn off the moving border).

You can copy a range of cells in the same way. Here, the *Profit Before Tax*, *Tax* and *Profit After Tax* formulae for 2012 are essentially the same as those for 2011:

4. Drag through the cells required (here from *B5* to *B7*)

The three cells should now be *blocked* (with a single darker border around them).

5. Press **<Ctrl c>** or click on the **[Copy]** button - the cells will be surrounded by a moving border
6. Press ***<right arrow>*** to move to *C5* and press **<Enter>**

Appropriately modified formulae appear in the cells with the results displayed. Note that you do *not* have to select a block of cells to paste a range; just paste in the top left cell of the destination area.

Copying formulae (or values) between cells is such a common requirement that Excel provides a special facility (called *autofill*) for doing this. The key is the *cell handle* - the small square at the bottom right corner of the active cell (or range). Try using this for the 2013 and 2014 formulae:

7. The cells to be copied (*C5* to *C7*) should still be selected - if not, drag through them
8. Move the mouse cursor over the small black *handle* at the bottom right of the selection (in cell *C7*) - the cursor will change shape to a simple black cross
9. Hold down the left mouse button and drag the handle over the area you wish to fill (across to *E7*) - release the mouse button and the formulae are copied across

Take great care when using the cell handle to copy formulae. If the mouse cursor is pointing to the edge of the selection rather than the handle, the cells are moved and not copied.

Your screen should now look like this:

	A	B	C	D	E	F
1	**Profit and Loss**					
2		2011	2012	2013	2014	
3	Income	€ 25,000	€ 30,000			
4	Costs	€ 15,000	€ 18,000			
5	Profit Before Tax	€ 10,000	€ 12,000	€ 0	€ 0	
6	Tax	€ 3,000	€ 3,600	€ 0	€ 0	
7	Profit After Tax	€ 7,000	€ 8,400	€ 0	€ 0	
8						
9						

Don't worry about the £0's for 2013 and 2014 because, although the formulae are there, there are no income or costs figures in *D3*, *D4*, *E3* or *E4* to work on.

10. Press **<Ctrl `>** to view the formulae which underlie the figures

Notice how the Profit Before Tax formula (which was =C3-C4 in 2012) has changed to =D3-D4 in 2013, and =E3-E4 in 2014. Note that the *taxrate* cell reference does not change as the formula is copied across row 6. Had you used *A10* instead, this would have been amended to *B10*, *C10* and *D10* which, being empty, would have multiplied the profit by zero!

Next provide the model with some Income and Costs figures for 2013 and 2014. Sometimes, when typing in formulae, it's better to work in *formula view* – you can then check that what you've typed is correct. When you work in normal view, the results appear as soon as you move to the next cell and you can't check you typed it correctly.

11. Work out formulae for D3, D4, E3 and E4 yourself, given the following assumptions:
    - in 2013, Income and Costs will increase by 10% over the 2012 values
    - in 2014, Income and Costs will increase by 5% over the 2013 values

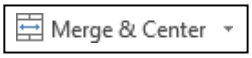
Hint: Copy the formula from *C3* to *D3* and *E3*, amend the percentage values then copy down to *D4* and *E4*.

12. Press **<Ctrl 1`>** again to return to normal working – the formulae results will now be shown

The screen should appear as below (see the Appendix or use the links above to check the formulae) but make sure you type in formulae (and not just the answers to the calculations):

	A	B	C	D	E	F
1	**Profit and Loss**					
2		2011	2012	2013	2014	
3	Income	€ 25,000	€ 30,000	€ 33,000	€ 34,650	
4	Costs	€ 15,000	€ 18,000	€ 19,800	€ 20,790	
5	Profit Before Tax	€ 10,000	€ 12,000	€ 13,200	€ 13,860	
6	Tax	€ 3,000	€ 3,600	€ 3,960	€ 4,158	
7	Profit After Tax	€ 7,000	€ 8,400	€ 9,240	€ 9,702	
8						

Realigning Titles

Align Left:  Center:  Align Right:  Merge and Center: 

By default, text is displayed on the left of a cell, numbers (including dates and times) on the right. Your model would look much neater if the year headings (2011, 2012 etc) were in bold text in the centre of the columns while the main title (*Profit and Loss*) could be centred across the figures below.

1. Select row *2* (by clicking on the number **2** on the left hand side)
2. Press **<Ctrl b>** or click on the **[Bold]** button to make the text bold
3. With the cells still highlighted, click on the **[Center]** button in the **Alignment** group on the *Ribbon*

Using the buttons along the top row of the *Alignment* group, you can justify cell contents vertically as well as horizontally. Another button, *Wrap text*, allows text to flow onto several lines.

Tip: If you want to force text onto more than one line in a cell, hold down the **<Alt>** key and press **<Enter>** where you want each new line to begin.

[Merge and Center] is used to centre text across several columns - try this for your main title:

4. Select cells *A1* to *E1*
5. Click on the **[Merge and Center]** button (on the right in the *Alignment* group)

The title will now appear in the centre of the selected range, even though it is still stored in cell *A1*. Incidentally, cells *B1* to *E1* no longer exist. To undo the merge and centre:

6. Check the merged cell is the active cell then click on the **[Merge and Center]** button again

Finally, the year headings would look better if they were separated from the main heading. Most users would add extra rows to achieve this but a better answer is to increase the row height:

7. Position the mouse cursor over the division between the Row **2** and Row **3** headings on the left (just like you did when changing the width of the columns)
8. Hold down the mouse button and drag the division down a row then release the mouse button

Functions

Insert Function:  AutoSum: 

Excel has hundreds of built-in functions which, as in mathematics, are denoted by using brackets after the function name. These can be seen via the **[Insert Function]** button on the *Formula Bar*.

1. Move to an empty cell and click on the **[Insert Function]** button
2. From *Or select a category:* choose **All**
3. Scroll down the *Select a function:* list to get an idea of what's provided

Note that information about any function selected is given at the foot of the *Insert Function* Window, while additional help is available via the **Help on this function** link. Don't try inserting any of the functions into your empty cell, just note what's available.

4. Reset the *category* to *Most Recently Used* then press **<Esc>** or click on **[Cancel]** to close the window

Calculating Totals - the SUM Function

Imagine you want to work out four-year totals, so that your model looks like this:

	A	B	C	D	E	F	G
1	**Profit and Loss**						
2		**2011**	**2012**	**2013**	**2014**	**Totals**	
3	Income	€ 25,000	€ 30,000	€ 33,000	€ 34,650	€ 122,650	
4	Costs	€ 15,000	€ 18,000	€ 19,800	€ 20,790	€ 73,590	
5	Profit Before Tax	€ 10,000	€ 12,000	€ 13,200	€ 13,860	€ 49,060	
6	Tax	€ 3,000	€ 3,600	€ 3,960	€ 4,158	€ 14,718	
7	Profit After Tax	€ 7,000	€ 8,400	€ 9,240	€ 9,702	€ 34,342	
8							
9							

1. Type the heading **Totals**into cell *F2* and press **<Enter>**

Next you need to add up the figures across each row. One way of calculating this for row *3* would be to use the formula =B3+C3+D3+E3. This works, but imagine you had twenty items to add up, or a thousand!
Instead, you can use a *function* to work out the value. To specify a function you type its name then, in brackets, the cell or range of cells to which it is to be applied. To signify a cell range, a colon is used to separate the starting cell from the end cell.

2. In cell *F3* type **=SUM(B3:E3)**- press **<Enter>** to do the calculation (widen the column, if necessary)

The *SUM()* function (and other commonly-used ones) is also available from the **[AutoSum]** button (the Greek sigma on the right of the *Ribbon*). Using this, you can calculate the missing total figures in one go:

3. Select *F4* to *F7*
4. Click on the **[AutoSum]** button (or press **<Alt =>**) - the remaining totals are filled in

Sometimes Excel guesses the range of cells to be summed incorrectly. The default is to total down a column rather than across a row. See what happens by recalculating the total in *F7*.

5. Move to *F7* and press **<Delete>** to clear the cell
6. Click on the **[AutoSum]** button (or press **<Alt =>**) - note the range is incorrect
7. Drag through the correct cells (*B7* to *E7*) to amend the range then press **<Enter>** to complete the calculation

The IF Function

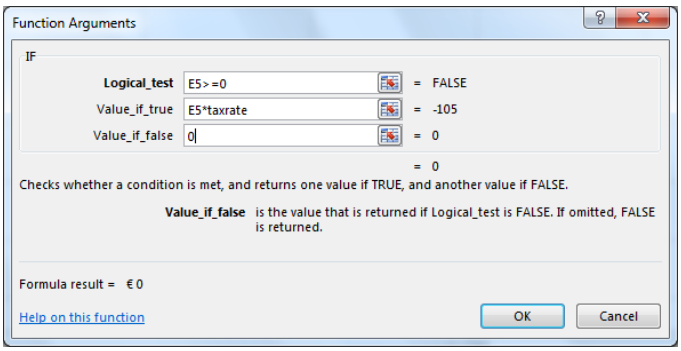
Another, slightly different, function is *IF*, which lets you test whether something is true or not and take different actions as appropriate. This next example shows you how it works.

What would happen if, in 2014, there was an exceptional Costs bill of £35,000 (for new equipment or premises, for example)? Income is only £34,650 so the business would make a small loss.

1. Type a new *Costs* figure of **35000** into cell *E4* and press **<Enter>**

Note that the *Profit Before Tax* is correctly shown as negative. However, the *Tax* figure is also negative - as if the tax collector was giving you money for making a loss. This doesn't usually happen! To make the model behave correctly you need to alter the formula in the 2014 Tax cell *E6*:

2. Move to *E6* and press **<Delete>** to clear the cell
3. Click on the **[Insert Function]** button on the *Formula Bar* and choose **IF** (reset *Or select a category:* to *Most Recently Used* to get to this most easily) then press **<Enter>** for **[OK]**
4. In the dialog box which appears set *Logical Test* to **E5>=0** (and press **<Tab>**)
5. Set *Value_if_true* to **E5*taxrate** (press **<Tab>**)
6. Finally set *Value_if_false* to **0** – the screen should appear as below:



7. Finally, press **<Enter>** for **[OK]**

This means that *if the contents of E5 (Profit Before Tax) are more than or equal to (>=) 0, the tax paid is equal to 30% of Profit Before Tax, otherwise, the tax is zero*. This produces a zero tax figure when the Profit Before Tax is in fact a loss. This example should teach you that spreadsheet models, even if they behave correctly in most circumstances, may break down under special conditions.

8. Copy the new formula from *E6* into *D6* to *B6* by dragging the *cell handle* backwards

Graphs and Charts

When plotting a graph, it's easiest to first select the data to be plotted. Include the column and row headings (if there are any) as these are used for the *category* (x) and *value* (y) names.

Tip: To select non-adjacent areas, you first drag through one area and then use *control select* (hold down **<Ctrl>** as you drag through further areas).

1. Select the required data area – here, cells *A2* to *E7* (ie missing out the *Totals* and main heading)

A new feature in Excel 2013 is the *Quick Analysis* tool. This appears whenever you select some data. To use it:

2. Click on the **[Quick Analysis]** button, which has appeared to the bottom right of the selection
3. Move to the **Charts** tab then select the first **Clustered** chart

Alternatively:

4. Move to the **INSERT** tab on the *Ribbon* then click on the **[Insert Column Chart]** button in the *Charts* group and choose the first (*2-D Column*) chart type for a *Clustered Column*

A chart (with 3 buttons attached) appears on the spreadsheet and two new *CHART TOOLS* tabs are added to the *Ribbon*. Don't worry if the chart partly covers the data that is still all there; indeed the two are intricately linked. If you were to alter any of the original data, the chart would immediately be updated. Further, you can copy additional values directly from the worksheet and paste the data straight onto the chart.

Moving a Chart

This default chart isn't quite right and charts are better placed on separate sheets. To do this:

1. Click on the **[Move Chart]** button on the far right of the *Ribbon* (or *right click* on the chart and choose **Move Chart…**) then choose *New sheet:* – press **<Enter>** for **[OK]**

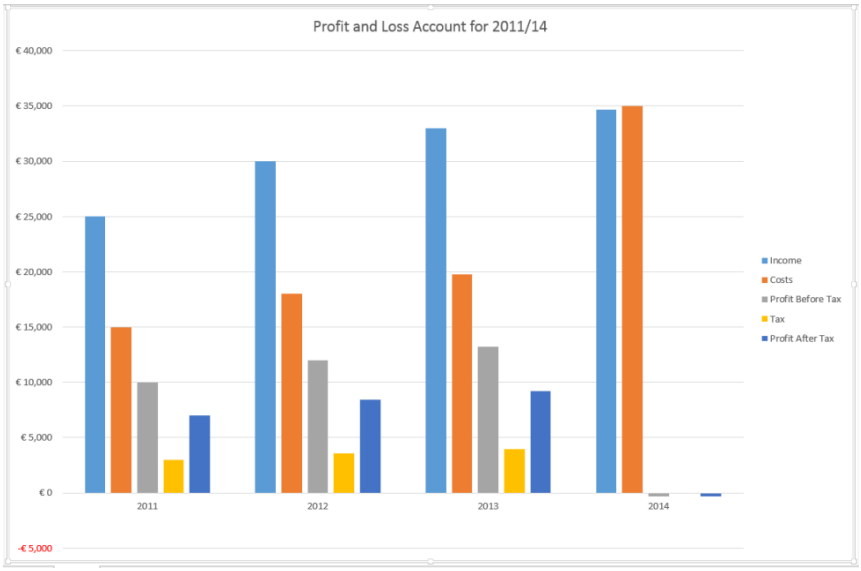
Note how much less space is taken up by the axes and legend. Next change the title of your chart

2. Click on the **[Chart Title]** at the top of the chart then type **Profit and Loss Account for 2011/14**

Note that you could also add *Axis Titles* via the **[Add Chart Element]** button, but these are not needed as the year is obvious and the vertical axis already has a currency symbol. Instead, try moving the *Legend*:

3. Click on the **[Add Chart Element]** button and choose **Legend** then **Right**

Your chart should now appear as below:



Note: The **[Switch Row/Column]** button in the *Data* group on the right of the *Chart Tools* **DESIGN** tab can be used to switch the axis labels and legend labels, should you want to have the years as the legend

If you want to change any of the other settings (eg one of the colours used for the columns or the background colour):

4. Move to the *Chart Tools* **FORMAT** tab on the *Ribbon* and, using the **[Chart Elements]** button on the far left, choose the element required – you can also select it by clicking on it on the chart
5. Next, click on the **[Shape Fill]** button and choose the required colour

Note: Excel also provides you with pre-defined colour palettes via the **[Change Colors]** button on the *Chart Tools* **DESIGN** tab. There are also a range of pre-defined styles here.

Altering the Chart Type

Change Chart Type: 

There are over a hundred different styles of graph which Excel can produce. To change the type:

1. *Right click* on the chart background and choose **Change Chart Type…** (or click on the **[Change Chart Type]** button on the right of the *Chart Tools* **DESIGN** tab on the *Ribbon*)
2. Using the mouse, select some of the different chart types shown, to see what is available

3-D Rotation

Excel allows you to rotate a 3-D graph to whatever angle and pitch you require, which can be very useful when some data values are hidden behind others. The procedure is as follows:

1. *Right click* on the chart background and choose **Change Chart Type…**
2. In the *Column* category choose **3-D Column** (on the far right) – press **<Enter>** for **[OK]**

Sadly, the *Profit* figures are hidden by the *Income* and *Costs*. To rectify this:

3. Right click on the chart background again and choose **3-D Rotation** – a *Task Bar* appears on the right
4. Increase the **X:** *Rotation* angle to **130°** using the *spin button* control (up/down arrows) provided
5. Experiment changing the **Y:** *Rotation* angle and **Perspective:** (reset both to the default **15°** afterwards) Another

way to display the profit figures would be to reverse the axis values:

6. First, click on **[Default Rotation]** then **[Close]** the *Format Chart Area Task Bar*
7. Next right click on the *Income/Costs Axis* and choose **Format Axis** – the *Format Axis Task Bar* appears
8. Here, under *Axis Options*, turn on the **Series in reverse order** option

You should now be able to see the hidden values. Formatting charts is covered in more detail in the Microsoft Excel 2013: An Intermediate Guide notes.

Borders and Gridlines

Borders: 

Another format you can apply to a range of cells (or single cell) is to put a border round them. For example, you might want your screen to look like this:

	A	B	C	D	E	F	G
1	**Profit and Loss**						
2		**2011**	**2012**	**2013**	**2014**	**Totals**	
3	Income	€ 25,000	€ 30,000	€ 33,000	€ 34,650	€ 122,650	
4	Costs	€ 15,000	€ 18,000	€ 19,800	€ 35,000	€ 87,800	
5	Profit Before Tax	€ 10,000	€ 12,000	€ 13,200	-€ 350	€ 34,850	
6	Tax	€ 3,000	€ 3,600	€ 3,960	€ 0	€ 10,560	
7	Profit After Tax	€ 7,000	€ 8,400	€ 9,240	-€ 350	€ 24,290	
8							

1. Move back to *Sheet1* by clicking on its tab at the foot of the screen
2. Select cells *B3* to *F7* (include the *Totals* this time)
3. On the **HOME** tab of the *Ribbon*, click on *arrow* on the right of the **[Borders]** button in the *Font* group
4. Choose a **Thick Box Border**
5. Next select *F3* to *F7* and add a **Left Border** in a similar way

Note: The grey lines separating the rows and the columns are called *gridlines*. Excel gives you the choice as to whether you want them displayed or not. To turn them off/on:

1. Move to the **PAGE LAYOUT** tab on the *Ribbon*
2. In the *Sheet Options* group uncheck/check the **View** option in the **Gridline** sheet options

Note that this only affects whether they are displayed *on the screen*. If you want them to be turned on/off *when printed*, turn on the **Print** option below **View**. The default is that they aren't printed.

Printing your Work

Print Preview

Before printing your work, you should preview it. This is particularly important in Excel if you want it to fit neatly onto the page. In a minute you will look at the *Page Setup* but first:

1. Click on the **[Print Preview and Print]** button on the *Quick Access Toolbar* or move to the **FILE** tab on the *Ribbon* and choose **Print**

Ideally, it would look better to have the paper sideways and the *taxrate* cell, for example, shouldn't appear.

Tip: You can easily hide the taxrate by changing the font colour to match the background – here white.

Page Setup

In *Page Setup* you can control how your results will appear on a printed page, including whether any column headings are repeated on each page (as a header row).

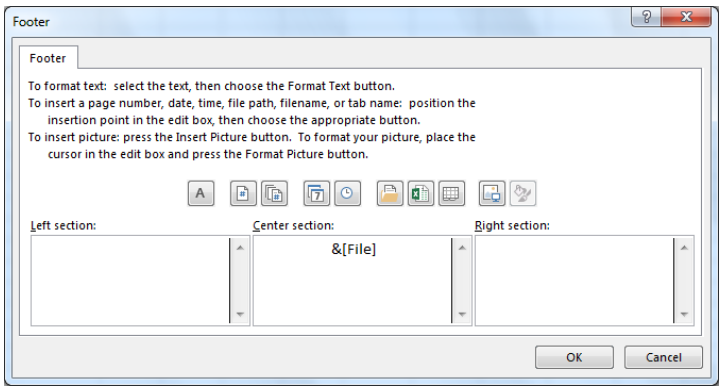
1. Press **<Esc>** (or click on the back arrow in the top left corner) to move back to your work
2. Move to the **PAGE LAYOUT** tab on the *Ribbon* then click on the **[Page Setup]** button (the arrow to the far right of the *Page Setup* group heading)

You will see various options grouped under four tab headings. Several settings are exclusive to Excel. The following exercise modifies some of these to show you how they work:

3. Check you are viewing the ***Page*** tab
4. Under *Orientation* choose **[Landscape]** – ie sideways
5. Under *Scaling* set **Adjust to:** to **180**- this will magnify your data to fill the page

Note that you can always force your work to fit on a single page (or more than one, if you require it). Note also that the *Paper size:* should be A4 if you are printing from a University Lab PC.

6. Move to the ***Margins*** tab and click on both **[Horizontally]** and **[Vertically]** under *Center on page*
7. Move to the ***Header/Footer*** tab then click on the *list arrow* attached to *Footer:* and choose **test** (to add the file name) – you could have put this in the header, instead, if you wanted to
8. Next, click on **[Custom Footer…]** – the following dialog box appears:



Note that Excel has coded the file name as *&[File]*. This is called a *Field Code* and will display the current name of the file if you save it with a different name. Other codes are available via the icons provided (read the text above to work out which is which). Try adding the date field on the right:

9. Click inside the *Right section* then on the date icon (the fourth) - *&[Date]* is added
10. Click on **[OK]** and note today's date now shows in the preview of the footer

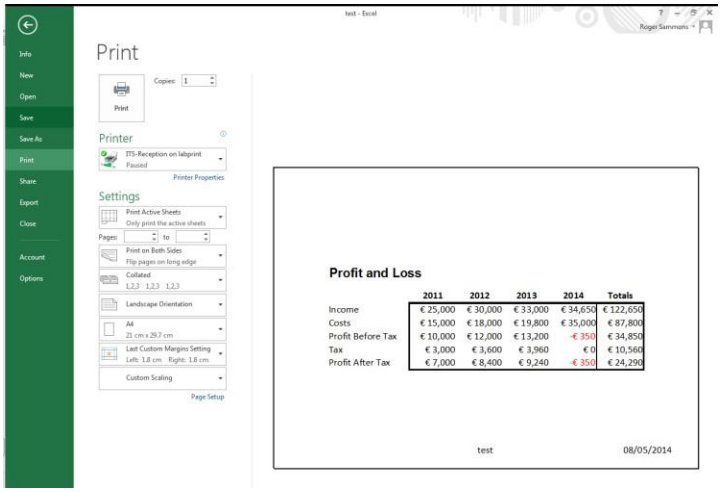
The ***Sheet*** tab lets you define the area to be printed, letting you omit cells you don't want (here, you don't want the *taxrate* displayed). It also controls whether **[Row and column headings]** are printed

11. Move to the ***Sheet*** tab
12. In the *Print area:* box type **A1:F7** (or drag through the required cells using the mouse)

Tip: *Sheet* also lets you set *Print titles* - rows and/or columns which are automatically repeated on each page for data which extends over several pages. To set this to the first row, for example, use **1:1**; for the first two columns use **A:B** – type the range or select the rows/columns to fill these in.

Within *Page Setup* you have links to *Print* and *Print Preview*.

13. Click on **[Print Preview]** to view the modifications – the screen should be similar to that below:



Leaving Excel

To quit from Excel:

1. Move to the **FILE** tab if necessary (you are already there) and choose **Close** (or press **<Ctrl F4>**)
2. Press **<Enter>** for **[Save]** when asked whether you want to save the changes to *test.xlsx*
3. Finally **[Close]** Excel by clicking on the cross in the top right corner of the window (or press **<Alt F4>**)

Appendix

The formulae required to complete the **test** example are:
In *A5* type **Profit After Tax**

B5	**=B3-B4**
D3	**=C3*110%**
D4	**=C4*110%**
E3	**=D3*105%**
E4	**=D4*105%**

Chapter 2: Microsoft Office: Power Point

Microsoft PowerPoint is widely used for making professional quality presentations in a variety of formats, including on-screen computer slideshows, black-and-white or colour overheads, and 35mm slides. You can also use it for speaker's notes and audience hand-outs.

In addition, PowerPoint can be used as a drawing package for preparing pictures, forms, posters and leaflets.

Running an Example Presentation

Start by opening an example file to see how a presentation looks and what PowerPoint can do. If you are not using an IT Services computer, then the presentation can be run by clicking on the link at Step **3**, below.

1. Click on the **Start** button in the bottom left corner of the screen and choose **My Computer**
2. *Double click* on the **Data (D:)** icon then repeat this on the **Training** folder icon
3. Finally, *double click* on the **example.ppsx** icon then follow the on-screen instructions
4. **[Close]** *Windows Explorer* after the presentation has finished

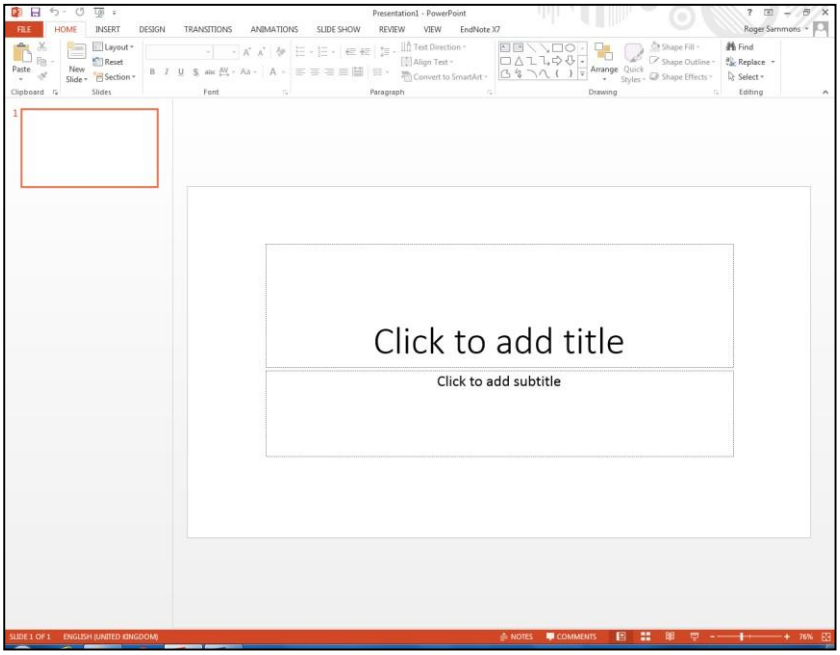
Note that the example presentation ran immediately on opening the file. This is because it was saved in a special *PowerPoint Show* format. Presentations saved in this format will even run on a computer which doesn't have PowerPoint installed. You'll learn more about this later.

Starting Microsoft PowerPoint

To load Microsoft PowerPoint:

1. Click on the **Start** button again but this time choose **All Programs**
2. From the sub-menu choose **Microsoft Office 2013** then **PowerPoint 2013** – choose **Blank Presentation**

You are presented with the screen below, ready to enter information onto your first (title) slide:



3. If necessary, **[Maximize]** the window to fill the screen

The main part of the screen is divided into two sections. The main section shows the current slide, while on the left, slide miniatures appear, allowing you to see the current slide in its context.

In the top left corner of the screen is the *Quick Access Toolbar* which contains icons to common commands, eg **save** and **undo**. Below this is the *Ribbon*, with *tabs* along the top. Each tab has a set of icons which are used to give instructions to PowerPoint. Currently the *HOME* tab is displayed.

At the very bottom of the window, is the *Status Bar*. This shows various information, eg which slide you are currently looking at (here you are on slide 1) and the language you're working in. On the right-hand side of the Status Bar are icons to change the view of the slides and to zoom in or out.

Creating a New Presentation

You are going to create a presentation, consisting initially of 6 slides, about the courses offered by IT Training. It's best to follow the notes exactly, step by step, though you can use your own information, if you prefer.

It's important whenever you create a presentation that you give full consideration to your audience. In particular, don't try to crowd too much information on each slide and make sure that the text is big enough to be clearly readable (especially for those with poor eyesight or similar disabilities). Throughout these notes, mention will be made of *good practice* so far as *accessibility* is concerned.

Entering Text onto the First Slide

The first slide has the layout for a *Title Slide* (usually you start a presentation with a title slide, though you don't have to). The layout has two boxes with a dotted frame. These boxes are called *placeholders*. Those provided here can contain text. You will be meeting other types of placeholder later. Instructions on using each type of placeholder appear within its frame.

1. Click on *Click to add title* to activate the top main title placeholder and type **IT Training**

Note that the default font is Calibri (Headings), the size is large (44 pt), and the title is centre-aligned in the placeholder. Calibri is a *sans-serif* font; these are recommended for good accessibility

2. Click on the lower placeholder, *Click to add subtitle*, and type ***your own name***

If you find the text on the screen a bit small to read then increase the magnification using the zoom facility in the bottom right-hand corner of the *Status Bar*. Use the slider or click on the **[Zoom level]** (%) button.

Saving a Presentation

It's a good idea to save your work at regular intervals whilst you are working on it rather than wait until you have finished the last slide. For example, you could save every 15 minutes or after completing each slide.

1. Click on the **[Save]** button on the *Quick Access Toolbar* (or move to the **FILE** tab and choose **Save**) – better still, use **<Ctrl s>** from the keyboard
2. Save the file in **My Documents** (click on it)

The *File name:* has already been set for you (PowerPoint uses the main title you entered on the first slide - IT Training) - you can change this here if you want. PowerPoint automatically adds a **.pptx** extension.

3. Press **<Enter>** for **[Save]**

If you wish to save your presentation in the older 2003 format, change **Save as type** to **PowerPoint 97-2003 Presentation (*.ppt)**. This would make it easier for anyone who has an older version of PowerPoint to open and edit the presentation. Note, however, that if a document is saved as an earlier version then any new features available in PowerPoint 2010 or 2013 will *not* be saved (you are warned what these are).

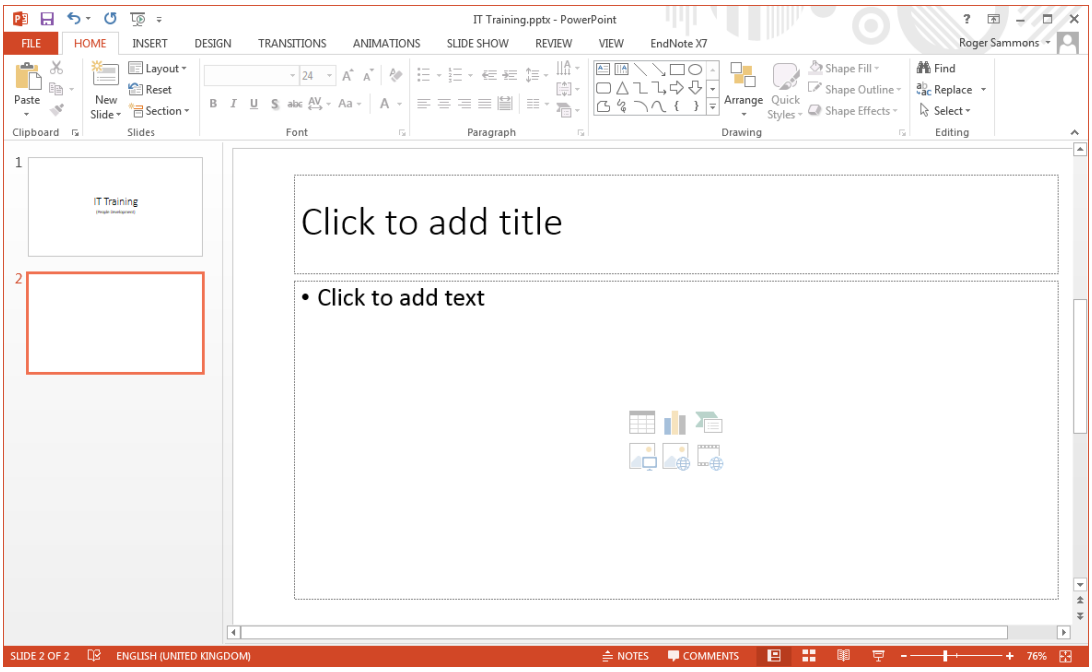
It's also worth noting some of the other **Save as type** options such as *.pps* or *.ppsx* for PowerPoint slideshows; *.pdf* for a non-editable copy in PDF format; *.png*, *.gif* or *.jpg* for graphics format; and *.xml* for web pages.

Adding New Slides

You are now going to add the next slide:

1. Click on the **[New Slide]** button on the left of the **HOME** tab in the *Slides* group (click on the icon not on the words *New Slide*) or simply press **<Ctrl m>**

A new slide appears in a different slide layout from the first called *Title and Content*. There are several different slide layouts available (which you can get to if you click on the words *New Slide* rather than the icon).

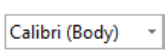


2. Click in the *Title* placeholder (where it says *Click to add title*) and type **Introduction**
3. Click in the *Content* placeholder (where it says *Click to add text*) to activate it

Tip: You can jump between placeholders by pressing **<Ctrl Enter>** on the keyboard; if on the last placeholder it creates a new slide.

4. Type in the following details, pressing **<Enter>** after each bulleted item:
    - **Different Ways of Learning**
    - **Training Materials**
    - **Training Sessions**
    - **Training Topics**

Changing the Look of Your Text on the Slide

Bullets  Font 

Font Colour  Change Case 

Line Spacing 

There are a number of ways that you could change the look of your text on this slide. You could, for example:

- change the bullet point character
- use a different font
- change the font colour
- change the case (upper, lower) of the text
- increase or decrease the line spacing between the bullet points

IMPORTANT: if you wanted to apply all or some of the above changes to *every* slide in a presentation, you would need to make the changes on the *Master Slide*. It's best to do this before you start typing your words onto the slides. You will look at Master Slides later.

To make changes to all your text you need to have the placeholder selected:

1. Press **<Esc>** (in the top left corner of the keyboard) – the placeholder handles are displayed
2. On the **HOME** tab in the *Paragraph* group, click on the down arrow next to the **[Bullets]** button
3. Choose the bullet character required (eg the tick marks or checkmark bullets)

You can also get to further choices after doing step **2** above by choosing **Bullets and Numbering…** at the bottom of the list. Here there are **[Customize...]** and **[Picture...]** buttons that allow you to choose non- standard characters and pictures as bullets. Take care when choosing non-standard characters as they may result in poor accessibility - it's best to stick to those offered here, unless you know what you are doing. Note also that the size of the bullet point can be changed relative to the text, as can its colour.

To use a different font:

4. Click on the *down arrow* next to **[Font]** button on the **HOME** tab, and choose the font you want

Remember that sans-serif fonts (eg Arial) are best. Next, to change the font colour:

5. Click on the *down arrow* next to **[Font Colour]** button in the *Font* group
6. Click on the square of the colour that you want (or click on **More Colors…** and select a colour from there then press **<Enter>** for **[OK]**)

To change the case of the text, eg turn all the letters to UPPERCASE or to lowercase:

7. Click on the **[Change Case]** button in the *Font* group and choose the case required Finally,

to change the line spacing of the bulleted points:

8. Click on the **[Line Spacing]** button in the *Paragraph* group on the **HOME** tab
9. Choose the line spacing required, eg **1.5** for *one and a half* line spacing

Note: the last item in the list, **Line Spacing Options…**, gives you access to further settings, eg to change the spacing before or after a paragraph.

To change the bullet point symbol, font, font colour or case on a particular bullet point, simply select that line (drag through it or click *three* times on the mouse button) then carry out the instructions as above. Note that you can also use the **[Format Painter]** (the *paint brush* icon in the *Clipboard* group on the left of the **Home** tab) to copy the format of one list entry to another (or to the whole list).

You don't have to have bulleted points at all, if you don't want them for a particular line. To turn them off:

10. Click on the line you don't want bulleted (here, click on the first line in the list)
11. Next, click on the **[Bullets]** button (click on the icon itself, not the list arrow) Your

bullet point should now have disappeared.

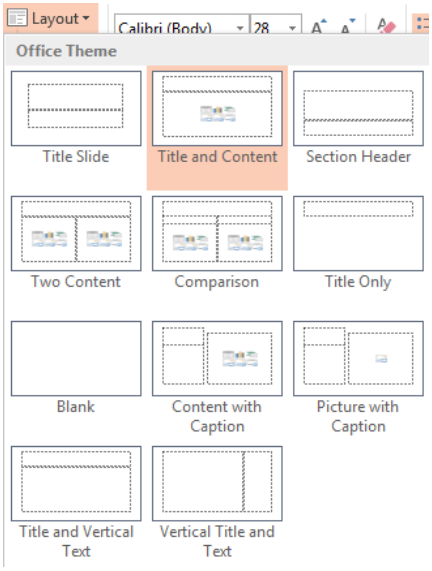
12. End by redisplaying the bullet – press **<Ctrl z>** for **[Undo]**

Changing the Layout to Include a Picture

What if you decide that you would like to add a picture to illustrate this slide? The easiest way to do this, keeping what you've done already, is to choose a slide layout which includes a picture placeholder.

1. Click on the **[Layout]** button in the *Slides* group on the left of the **HOME** tab

You have various options as shown below:



2. In the second row, click on **[Two Content]** – a new placeholder appears on the right

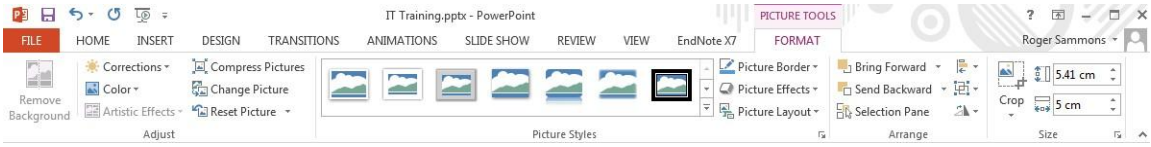
Tip: The advantage of a content layout is that it will automatically resize a picture to fit within it if the image is too large, saving you the bother of manually resizing large images.

Adding a Picture from the Clip Art Gallery

This new placeholder has content icons (in the centre) as well as the usual bullet points at the top. These let you add a Table, Chart, SmartArt, Picture, Online Picture or Video respectively. To insert some Clip Art:

1. Click on **[Online Picture]** (the *second* icon in the *bottom* row) then select **Office.com Clip Art**
2. Type **computer** into the *Search for:* box at the top of the pane then press **<Enter>** for **[Go]**
3. *Double click* on the picture you want, to add it to your slide

Your chosen clip art will be inserted, and an extra *Picture Tools Format* tab is added to the *Ribbon*:



The buttons on this tab allow you to change things like the picture's *brightness*, *contrast* and *colour* (in the *Adjust* group). The *crop* tool (in the *Size* group) lets you cut off unwanted areas by trimming down the edges of the picture. You can experiment with these options if you like. Clicking on the slide, away from the clip art, changes back to the *Home* tab. When you click on the clip art again, the *Picture Tools Format* tab reappears.

With the clip selected, you can easily change its size, position or rotate it. To change the size:

4. Point the cursor to one of the white circles or squares (*border handles*) around the picture then hold down the mouse button and drag the handle out (to make it bigger) or in (to make it smaller)

5. To reposition the image, point inside the picture placeholder then hold down the mouse button and drag it to the required position (or use the **<*arrow keys*>** on the keyboard)
6. To rotate the clip, move the pointer over the *circle* (top centre) then hold down the mouse button and move the mouse in a circular motion

Tip: To do the above steps more accurately, you can use the **[Height]** and **[Width]** buttons in the *Size* group and the **[Rotate]** button in the *Arrange* group on the **Picture Tools Format** tab.

It's easy to change the clip if you decide you prefer another:

7. Click on the clip to select it then press the **<Delete>** key – the content items reappear
8. Click on the **[Online Picture]** icon then choose a new clip as before

Applying a Theme

A *theme* can make your presentation look more professional. The default theme uses black text on a white background. This is somewhat boring and simple, but good for accessibility. To see the different themes:

1. Move to the **DESIGN** tab – the ribbon changes to show a number of different themes:

2. Move the mouse pointer over any of the themes – the current slide will display the chosen theme
3. For more schemes, click on the **[More]** button at the foot of the *scroll bar* on the right of the themes
4. Click on your preferred theme - both slides should now display the new theme

Tip: If you *right click* on a theme you can choose whether to **Apply to All Slides** or **Apply to Selected Slides.**

Usually, all the slides in a presentation will have the same theme but, if your presentation is split into different sections, then you could consider using a different theme for each section.

Most of the themes use contrasting text and background colours to maximize accessibility, ie light text on a dark background or dark text on a light background. This helps to make the text clearer and easier to read. Note that some themes contain pictures or patterns that could cause viewing problems for certain people. You can always apply a different theme later if you decide the current one is unsuitable.

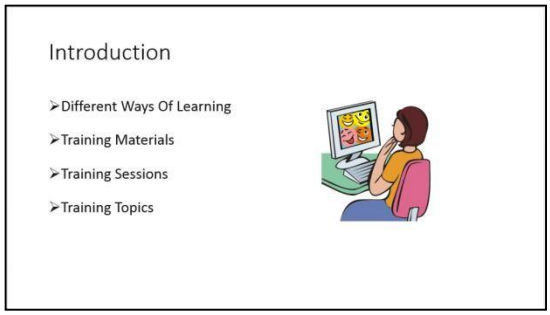
Note also the ***Variants*** group to the right of *Themes*.

5. Move the mouse over the variants to see alternative colour schemes – there's no need to choose one
6. Press <**Ctrl s**>to **[Save]** your presentation again

Creating Further Slides

Your first two slides should look something like this:

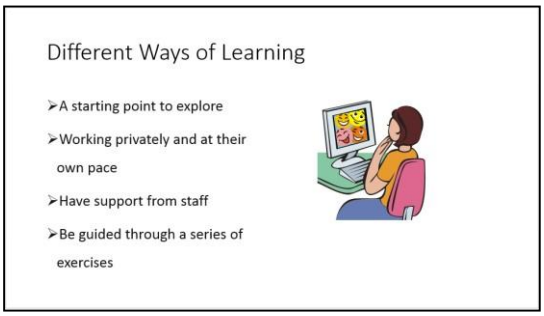
slide 1

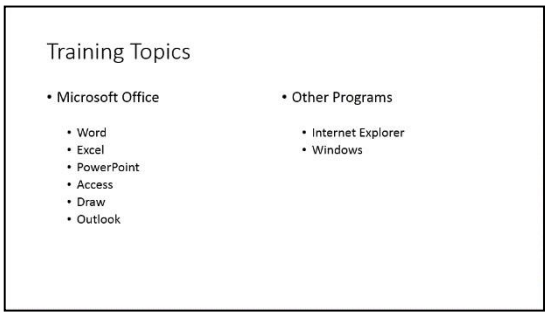


slide 2

Create the following slides in the same way (going from left to right, downwards), choosing the correct layout for each as you proceed:

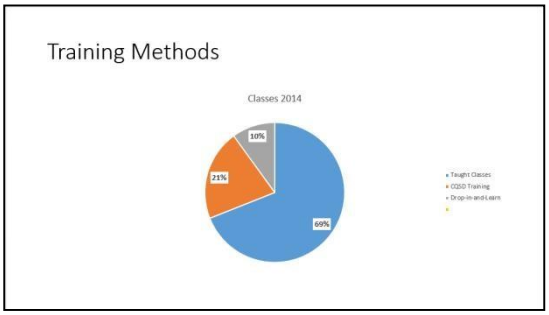
slide 3

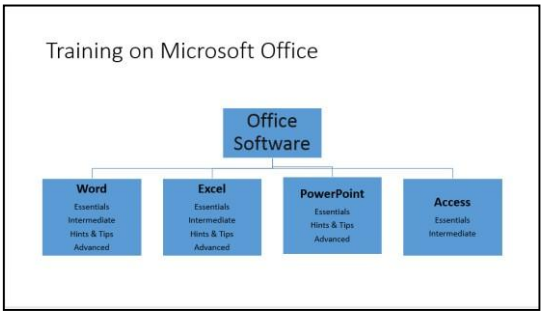




slide 4

slide 5





slide 6

A few points to note:

- Slide **3** (*Different Ways of Learning*) is identical to slide **2**, apart from the text. You could duplicate slide **2** and then modify the text on the new slide - *right click* on the slide miniature and choose **Duplicate Slide**
- On slide **4** (*Training Topics*), a **Two Content** slide layout is used. In each content box, there are some sub- bullet points below the two main ones (ie *Microsoft Office* and *Other Programs*). To create these:
  1. Having typed the main list item, press **<Enter>** to add a new main bullet point

     Increase List Level 

  2. Press **<Tab>** or click on the **[Increase List Level]** button to set a sublevel bullet
  3. Type in the required text then press **<Enter>** and type in the next sub-bullet point
- For slide **5** (*Training Sessions*), a **Title and Content** layout is used. In the content box, the **[Insert Chart]** icon was used to choose a *pie* chart. The original *data* in the chart was changed through the table that appears, and the **[Quick Layout]** button on the **CHART TOOLS DESIGN** tab was used to get *percentages*

- On slide **6** (*Training on Office 2013*), a **Title and Content** layout is used to produce an *organisation chart*.

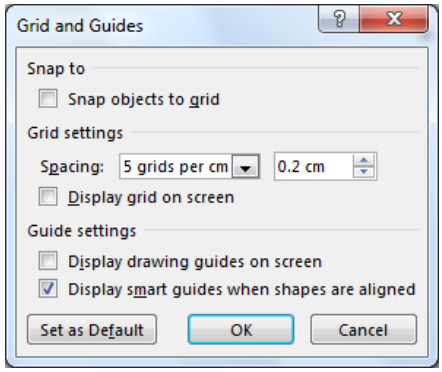
  1. In the content box , click on the **[Insert SmartArt Graphic]** icon
  2. Within the *Choose a SmartArt Graphic* window, click on **Hierarchy** on the left
  3. Select the *first* **Organization Chart** layout on the right and click **[OK]**
  4. Enter the information that you want in the boxes - to add/cut boxes or shapes *right click* on them then choose the appropriate option from the *shortcut menu* (you can also **<Delete>** them)

Remember to save the latest version of your presentation - press **<Ctrl s>**. At this point, it's also worth doing a spell check on your presentation – to do this, move to the **REVIEW** tab and then click on the **[Spelling and Grammar]** button on the left.

Guides, Gridlines and Rulers

When creating your slides, the placeholders have largely been left in their default positions. Often, people move them around slightly, usually to cram extra information onto a slide. This isn't good practice – not only do you end up with too much on a slide but the consistency of layout is lost. If you do need to do this then it's better to do so on the *Master Slide* (see later) but it also helps if you display the *Rulers* and *Guides*. To do this:

1. *Right click* on a slide background and choose **Ruler** – a ruler appears at the top and left
2. *Right click* again and this time choose **Grid and Guides…** - the following dialog box appears:



3. Turn on **Display grid on screen** and **Display drawing guides on screen** – press **<Enter>** for **[OK]**

The guides are the lines which split the slide exactly into quarters, while the default grid is shown by dotted lines 2cm square. Each dot represents 0.4cm. Objects are lined up with the grid; to see this:

4. Click on the *Title* placeholder (*Training on Microsoft Office*) on slide **6** then press **<Esc>**
5. Use the *arrow keys* to move the placeholder slightly

Note: If you have *Snap objects to grid* turned on, each key press moves it 0.2cm (a grid setting) exactly

6. Move the placeholder back to its original position – or use **<Ctrl z>** to **[Undo]** the changes
7. To hide the grid, repeat step **2** then turn off **Display grid on screen** – press **<Enter>** for **[OK]**

Knowing about the grid and guides will help you position placeholders exactly but, better still, don't be tempted to move them at all. To learn more see Microsoft PowerPoint: Positioning Objects.

PowerPoint Views

It is possible to view your presentation in a number of different ways. To switch between views:

- **Either:** Move to the **VIEW** tab and choose one of the icons in the *Presentation Views* group
- **Or:** Use the buttons at the bottom *right* of the window (just to the left of the Zoom options) The

table below gives a better idea of what the 4 different view buttons give you:

View	On Screen	Use To
Normal View	Shows the slides in miniature and in full, plus any notes underneath	Edit contents of slides; try out animation effects
Slide Sorter	Shows a miniature of each slide in the current order	Add, delete and move slides; rehearse timings
Reading View	Plays the presentation on screen from the current slide	Practise presentation and have access to other tasks
Slide Show	Plays the presentation on screen from the current slide	Practise presentation

From the **View** tab on the Ribbon, there is also the following option (instead of *Slide Show*):

- **Notes Page** gives a view with more space for speaker's notes under the slide. Here, you can type up exactly what you plan to say for each slide. The notes can then be printed out so you have them to consult when giving an actual presentation

Note: The **[Reading View]** icon here plays the presentation from the very beginning.

Moving through the Slides

There are several ways to move between slides, when preparing a presentation in *Normal* view:

- Click on the required slide miniature in the left-hand section of the screen
- Use the scroll bar on the right of the main display - drag the indicator up or down (the current slide details are displayed as you do so)
- Use the double arrow buttons (**[Previous Slide]** and **[Next Slide]**) at the foot of the scroll bar
- Press the **<Page Up>** or **<Page Down>** keys
- Use the ***<up arrow>*** or ***<down arrow>*** keys

Decide which of the above best suits you and then try moving through your current presentation.

Deleting and Hiding Slides

It's easiest to delete slides in *Slide Sorter* view (though you can also do so in *Normal* view), especially if you have a lot of slides to deal with:

1. Click on the **[Slide Sorter]** button (either on the *Status Bar* or **VIEW** tab)
2. Click on the slide to be deleted (eg slide **4**, *Training Topics*) then press the **<Delete>** key
3. To reinstate the deleted slide (you were just practising), press **<Ctrl z>** for **[Undo]**

You might want to temporarily *hide* a slide – for example, if you are giving the presentation to a different group of people for whom that slide is not appropriate. You could also have extra hidden slides which you could add in if you had plenty of time or if someone asked a particular question during the show. When a slide is hidden it remains within the PowerPoint file, but is not displayed during the presentation. To hide a slide:

4. *Right click* on the slide to be hidden (in *Normal* View you have to right click on the slide miniature)
5. From the *shortcut menu* choose **Hide Slide** - you'll find that the number underneath the slide now has a line through it indicating that it's hidden
6. To show the slide again, just repeat steps **4** and **5**

Tip: To display a hidden slide when running a show, press the **<h>** key on the keyboard or type in the slide number and press **<Enter>**.

Changing the Order of Slides

As with deleting slides, the easiest way to move slides around is within *Slide Sorter* view:

1. Make sure you are in *Slide Sorter* view
2. Point to the slide you wish to move then hold down the mouse button and drag the slide to the new position
3. Release the mouse button when the slide is correctly positioned

Note: In *Normal* view you can change the order by moving (*drag & drop*) the slide miniatures up and down the left panel. In both views, you can also cut/copy and paste slides via the *Clipboard*.

Creating Notes Pages

In *Notes Page* view, you can create notes that you can print out and use as a guide during your presentation. Each printed page contains an image of the corresponding slide and its notes.

1. Select one of your slides then, on the **VIEW** tab, click on the **[Notes Page]** icon
2. Click in the *notes placeholder* below the copy of the slide (where it says *Click to add text*)
3. To see what you are typing, click on the **[Zoom]** icon on the ribbon, select **100%** and click **[OK]**
4. Type in some notes for the speaker, for example: **Remember to say...**
5. Close the notes page view by clicking on the **[Normal]** button (on the *Status Bar* or **VIEW** tab)
6. Press **<Ctrl s>** to save any changes to your file

Note: You can also add notes in *Normal View* (where it says *Notes* on the *Status Bar*).

Running the Presentation

Once you have made the slides for a presentation, you can run the show. If you use the **[Slide Show]** button on the *Status Bar* then it begins from the currently-selected slide; if you press **<F5>** then it starts from the first slide. On the **SLIDE SHOW** tab you can choose from either **[From Beginning]** or **[From Current Slide]**.

Tip: You can also run a presentation from the current slide using the key combination **<Shift F5>**.

1. Click on slide **1** to ensure the show starts from the very beginning
2. Click on the **[Slide Show]** button on the *Status Bar* (or use **<F5>**)
3. To move forward one slide, click the left mouse button

Note: <Enter>, **<n>**, ***<right arrow>***, ***<down arrow>*** or the ***<spacebar>*** on the keyboard also work.

4. To move back one slide, press the ***<left arrow>*** key (or **<p>** or ***<up arrow>***)

You can also click the *right* mouse button to display a popup menu. This presents you with a number of useful tools, including:

- **Next** and **Previous** to move back/on one slide, respectively
- **Last Viewed** - useful if you have jumped to another slide (out of sequence)
- **See All Slides** – you can use this to jump to another slide in the presentation

  Note: you can also jump to a particular slide by typing in its number and pressing **<Enter>**
- **Zoom In** – lets you select and magnify part of a slide – use **<n>** to move directly on to the next slide
- **Screen** - gives you control over the display
  - **Black Screen** or **White Screen** temporarily suspends the presentation (press any key to show it)

    Note: you can also activate these by pressing **<b>** or **<w>** on the keyboard while running a show
  - **Show Taskbar** displays the Windows *Task Bar* if you want to jump to another application
- **Pointer Options** - annotation pens for scribbling over your presentation
  - Choose **Laser Pointer** or **Pen** (which can be used to draw on the slide) or **Highlighter** to highlight text. To activate the pen while running a show press **<Ctrl p>**; **<Ctrl a>** redisplays the pointer
  - Choose **Ink Color** to change the colour of the pen
  - Use **Eraser** or **Erase All Ink on Slide** to remove any pen marks you may have drawn
  - Use **Arrow Options** and **Automatic** to set your pen back to a pointer; **Hidden** hides the pointer

    Note: pressing **<Ctrl a>** while running a presentation hides/shows the pointer
- **Help** gives information about other key combinations you can use during the show
- **End Show** and **Pause** - use this if you need to finish early or it's been a disaster!

  Note: to leave the slide show at any time, press the **<Esc>** key

After the last slide, PowerPoint displays a black *End of slide show* screen. If you have added ink annotations to your slides you are asked if you want to keep them (the original slides will be changed if you do); you are then returned to the previous view. See the Running Presentations in PowerPoint for further information.

Animating your Presentation

Presentations are greatly improved by adding animation. PowerPoint gives you a wide selection of built-in animations, both when moving between one slide and the next and within each slide (as you introduce points in a list, for example).

Slide Transitions

Instead of simply moving abruptly from one slide to another during a presentation, slide transitions allow slides to dissolve into each other, using a variety of different special effects. These can make your on-screen presentation look even better and more professional, but don't get too carried away!

1. Check you are in *Normal* view and that the first slide is selected
2. Move to the **TRANSITIONS** tab to see the following ribbon:

Dominating the ribbon is the *Transition to This Slide* group. As you click on an icon, you'll see the transition effect on the slide (there is also a *More* arrow that will show you all the different transition effects in one window). The **[Effect Options]** button lets you change the direction of the effect. *Timing* (the group to the right) lets you change the speed of the transition effects.

3. Choose one of the transition effects for the first slide (the **[More]** button shows all the effects)

Note that a *small star* symbol appears to the left of the first slide miniature - this indicates that a transition has been setup on this slide. Next, explore the options available:

4. Click on **[Effect Options]** and change the direction of the effect
5. Increase the *Duration:* of the transition to slow it down and see the effect more clearly. You

can also set up a *Sound:* but note that the speakers have been disabled on the ITS Lab PCs.

Another useful feature moves on a slide automatically (without you having to click the mouse button):

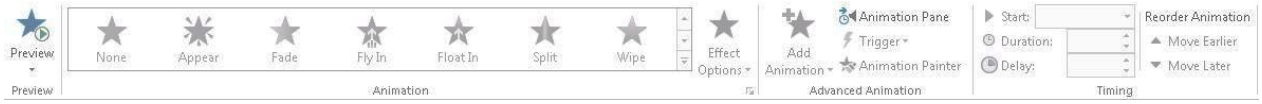
6. Under *Advance Slide*, set the next slide to appear *After:* a set number of seconds
7. Move to the next slide and repeat steps **3** to **6**, choosing different effects
8. Finally save your presentation (press **<Ctrl s>**) then run it **(<F5>)** to see the effects - press **<Esc>** when you've seen enough

Having different transition effects between slides may add interest but it isn't good practice. It distracts from the talk and isn't good for accessibility. It's best to stick to one transition throughout (and only use a different one for effect, if you need to). To standardise the transition:

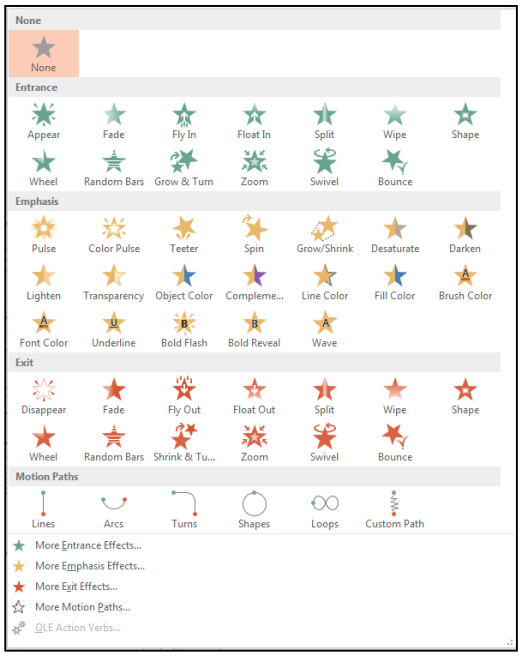
9. Remove the current effects by choosing **[None]** (the first in the list) then click on **[Apply to All]**
10. Next, choose your preferred transition (repeat steps **3** to **6**) then click on **[Apply to All]**
11. Finally, press **<F5>** to see the effects

Animation Schemes

PowerPoint allows information on your slides to appear one item at a time. This stops your audience from reading ahead of you, making them concentrate on each point individually. Try the following to animate a set of bullet points:



1. Move to the **ANIMATIONS** tab then click on a slide with a bulleted list on it (eg slide **2**)
2. Click on the bullet points then move the mouse over the *Animations* icons and watch the effects
3. Click on the **[More]** button at the foot of the *Animations* scroll bar to see more animations:



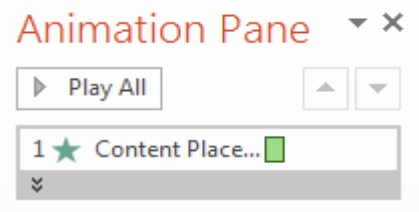
Try setting up various animations for your slides:

4. From the list of animations choose one of them, eg *Fade*
5. Click on **[Effect Options]** (if active) and see what is available
6. Repeat steps **3** to **5** for another slide with bullet points, choosing a different animation

Tip: As with slide transition, it isn't a good idea to use too many different animations as they can distract the viewer. Always bear accessibility in mind and avoid some of the more 'exciting' animations.

To see what you can do with advanced animation:

7. Click on the slide title on one of the slides that you've already animated
8. Next, click on the **[Animation Pane]** button in the *Advanced Animation* group to display the task pane



Currently, the title (and picture) isn't animated. To add animation:

9. Click on the **[Add Animation]** button and choose an *Entrance* animation
10. Click the **<▲>** button (or on **[Move Earlier]** in the *Timing* group) to animate it before the list
11. Select the title again and this time **[Add Animation]** choosing an *Emphasis* animation
12. Repeat step **10** to move it to second in the list
13. Click the **[Play From]** or **[Preview]** button to view your changes
14. Next, try animating the picture, displaying it after the title animations
15. Finally, save your presentation (press **<Ctrl s>**) then run it from the first slide (press **<F5>**)

Tip: You can also set up *Exit* effects and *Motion Paths* - for example, when the slide is finished, you can get the picture to exit along a particular motion path. This is all done via the **[Add Animation]** button (as above).

16. End by closing the *Animation Pane* (click on the button or on the **[x]** at its top right)

For further information about animating text or objects, look at the following advanced documents:

- Microsoft PowerPoint: Animating Text
- Microsoft PowerPoint: Animating Objects

More Advanced Features

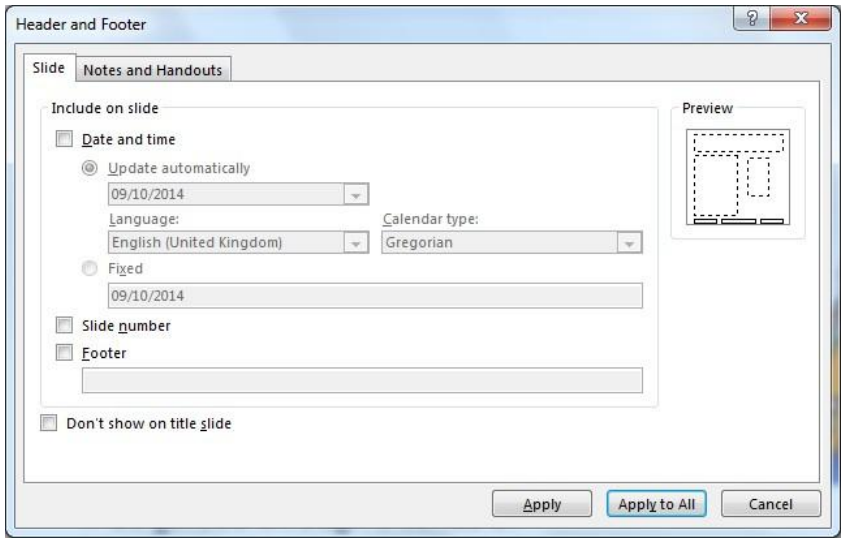
Adding a Header/Footer, Date or Slide Number

You can add the following further information to the top/bottom of each slide:

- the **header/footer** is often used to show your name, the presentation title or copyright information
- the **date** can show either the date the presentation was last saved or the current date
- the **slide number**

To add information at the top/bottom of your slides:

1. Move to the **INSERT** tab on the *Ribbon* then, in the *Text* group, click on **[Header & Footer]**



2. Turn on the **Date and time** option - **Update automatically** will refresh the date to show today's date whenever you open the presentation and also allows you to choose from a range of display formats
3. To add slide numbers, turn on **Slide number**
4. To add footer text, turn on **Footer** and type your text (eg **IT Training**)
5. You probably won't want any of this to appear on your *Title Slide* so turn on **Don't show on title slide**
6. To add this information to all of the slides, click on **[Apply to All]**

You should find that all of your slides, apart from the first *Title Slide*, now have some information at the top or bottom. If you want to remove this information from certain slides:

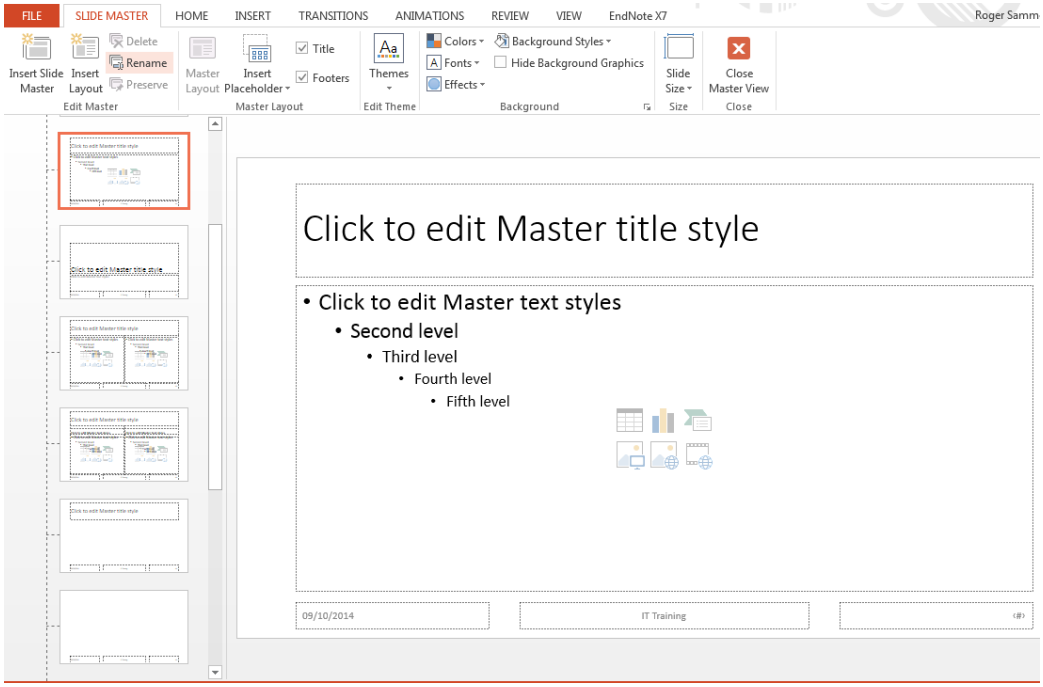
7. Select these slides (use **<Ctrl click>** to select more than 1 slide)
8. Move to the **INSERT** tab then click on **[Header & Footer]** in the *Text* group
9. Clear the check boxes for information you don't want shown then click on **[Apply]**

If you want to change the look of your information at the top/bottom of all the slides, eg font or colour, or you want to move it to a different position on the slide, then you have to make the changes on the *Slide Master*.

Master Slides

Master slides are very important as they control the layout of your whole presentation. They allow you to create your own slide template which is applied to every slide. This is useful if you want to put your own logo, picture or even just your name in the same place on each slide.

1. Move to the **VIEW** tab then click on the **[Slide Master]** icon in the *Master Views* group – a window similar to that below appears:



A **Slide Master** tab is displayed on the *Ribbon* indicating that you are in the *Slide Master* view.

2. Click on the **first** (top) slide miniature on the left

This is the **Slide Master** which is used by all the slides – any changes you make here are applied to the whole presentation. The slide miniatures below are all the usual slide layouts that are available, some of which are being used by certain slides. To make changes just to a specific layout, you make them on that custom layout.

To change the look of all the information at the top/bottom of each slide:

3. Select the footer placeholders using the mouse to draw a selection rectangle over the placeholders – hold down the mouse button and drag over them (the rectangle must enclose the placeholders)
4. Move to the **HOME** tab and use buttons in the *Font* group to change the format, eg font size
5. To change any placeholder's position, click on the edge (or, more easily, click on it then press **<Esc>**) and use the **<*arrow_keys*>** to move it to its new position
6. To see the changes to all the slides, move to the **SLIDE MASTER** tab and **[Close Master View]**
7. Save your presentation - press **<Ctrl s>**

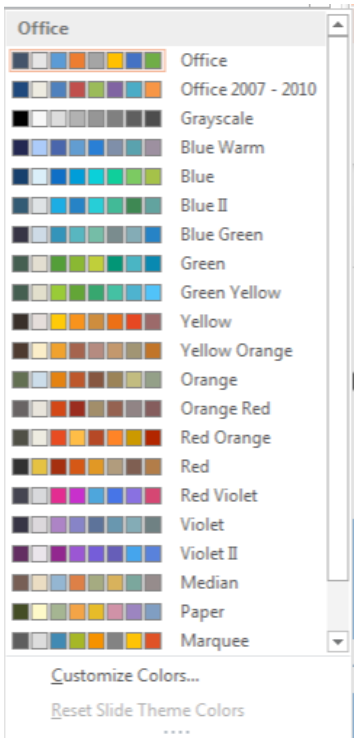
Other things which you may wish to set up on the master slide (or a custom layout) include:

- Adding a picture or image - to change the background colour see *Changing the Theme* below
- The default font and font sizes for the text and title styles
- The bullet point characters for the five bulleted list levels

For examples of the above, see the advanced notes Microsoft PowerPoint: Templates and Slide Masters.

Tip: University staff can download the latest *Reading Document Templates*, which include those for PowerPoint (as well as Word), to their own office computers by following the instructions in the *Design & Print Studio Staff Templates* at http://www.reading.ac.uk/dps/visualidentity/dps2-visualidentity- templatesdownload.aspx

Changing the Theme

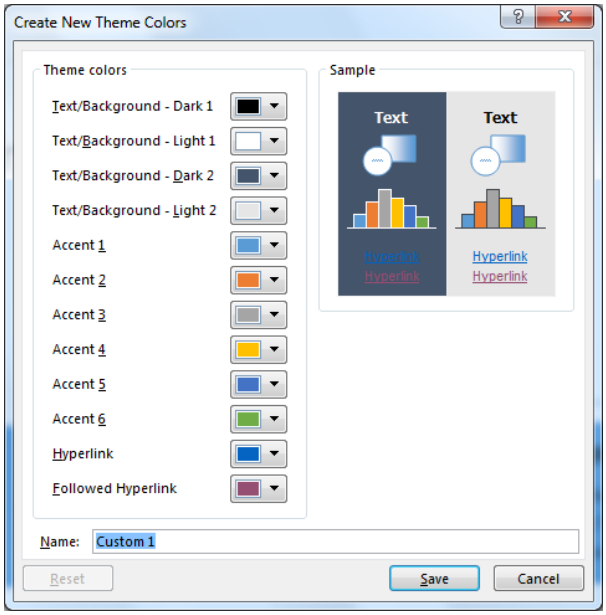


Themes, like slide masters, play an important role in PowerPoint and should always be used when developing more advanced presentations. Within a theme, you can change the *colours*, *fonts* and *effects* that are used.

Each colour theme is a palette of 8 colours which are used for particular elements in your presentation - eg the background, text and hyperlinks. Rather than change a colour for particular elements on each slide or on the *Master Slides*, you should reset it in the colour theme - it is then applied to all your slides and Masters automatically.

PowerPoint has several pre-defined colour themes, which are specifically designed to give a palette of colours which work together to give clear and interesting presentations. You will find that different themes have different pre-defined colour themes:

1. Move to the **DESIGN** tab – the ribbon changes to show a number of different themes
2. To the right of the themes is the ***Variants*** group – move the mouse over the various colour themes to see a preview of them
3. To create your own colour theme, click on the **[More]** button on the right of the Variants group then on **Colors** followed by **Customize Colors...** – the *Create New Theme Colors* window appears:



This details the different elements and the colour used for each, as shown in the *Sample* on the right. There are two pairs of text/background colours – for example, *Dark 1* text appears on a *Light 2* background.

4. Click on the *arrow* next to the **Dark 2** *Text/Background* to modify it – note the change to the *Sample*

Take care when changing the colours not to reduce accessibility. Normally, you would reset all the colours in the theme as required then give your theme a *Name:* so you can use it on other presentations. Here:

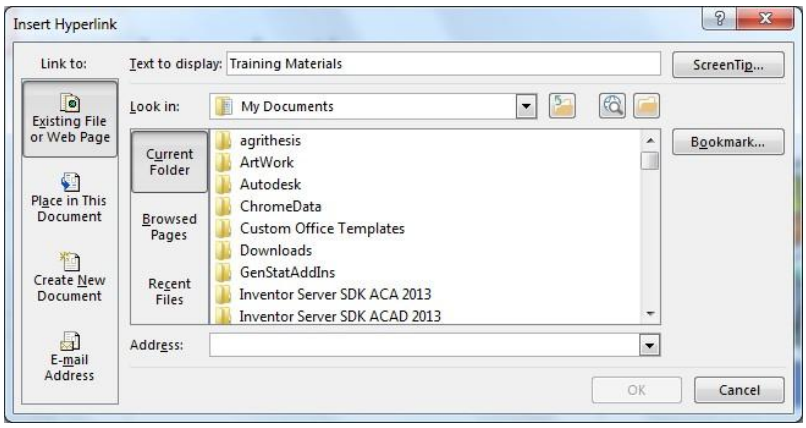
5. Click on **[Reset]** to reverse the change to the dark background
6. Finally, click on **[Cancel]** to return to your presentation with your original colour theme

In the *Background* group on the right of the **DESIGN** tab is a **[Format Background]** button – this can be used to choose a different slide background and one can fine tune the background or set it to a picture. See Microsoft PowerPoint: Themes for more information.

Web and Email Links

You can easily set up a web or email link on a slide that will open up the web or email when clicked on during the presentation. If you add a web address to a slide it is hyperlinked automatically. Here, try the following:

1. Move to the slide where you want the link to appear - eg the 2nd slide entitled **Introduction**
2. Drag through the text to be used for the hyperlink - eg **Training Materials**
3. Move to the **INSERT** tab and click on the **[Hyperlink]** icon in the *Links* group (or press **<Ctrl k>**)- an *Insert Hyperlink* window similar to that below appears:



4. In the *Address* text box, type in the following web address (or a different one if using your own data), **www.reading.ac.uk/internal/its/training/its-training-index.aspx** then click on **[OK]**

Note: you can also insert an address from previously *Browsed Pages* or use **[Browse the Web]** to pick it up.

An email link can be setup similarly. If you type it in as text on a slide then it is hyperlinked automatically. To add a link to existing text or a picture, click on **[E-mail Address]** in the *Insert Hyperlink* window, type in the address in the *E-mail address:* box and then click on **[OK]**.

5. Click on the **[Slide Show]** button on the *Status Bar* to run the presentation from the current slide
6. When the web link appears, click on it to test it out (the web page should appear in *Internet Explorer*)
7. **[Close]** or **[Minimize]** the *Internet Explorer* window to return to your PowerPoint slideshow
8. Finish running your show (or press **<Esc>** to end it immediately) then press **<Ctrl s>** to **[Save]** it

Tip: If you made a mistake typing in the web or email address (or want to change it to a different one), *right click* on the hyperlink and choose **Edit Hyperlink...**.

Rehearsing Timings

It's a good idea to rehearse your presentation before actually giving it in public to an audience. PowerPoint even lets you set up specific timings for each slide or section of a slide (eg for each bullet point) so that the presentation runs automatically. This is especially useful if you want the show to run unattended (eg at an Open Day). To see how this works:

1. Move to the **SLIDE SHOW** tab and click on **[Rehearse Timings]** in the *Set Up* group

The first slide appears as normal but a *Rehearsal* toolbar is displayed in the top left-hand corner of the screen. A clock is already running! In fact there are two clocks - the one on the left shows the time for the slide, the other the total time for all the slides.

2. When you are ready, move onto the next slide as usual - if the timing is wrong and you want to start the clock for that slide again, click on **[Repeat]** (the button between the two clocks)
3. Repeat step **2** for each slide
4. At the end of the presentation you are asked if you want to save the timings - click on **[Yes]**

5. Click on the **[Slide Sorter]** button - the timings for each slide are shown beneath them.
6. Press **<F5>** to run the presentation again (to see how it looks with timings - you don't do anything) Note

that you can always override the timings by clicking the mouse button or pressing **<Enter>** as usual.

If you decide that you don't want to use the timings then you can easily disable them:

7. Untick the box to the left of **[Use Timings]** in the *Set Up* group on the **SLIDE SHOW** tab.

Note: To remove timings from a particular slide (eg **Slide 1**), make sure the slide is selected then move to the **TRANSITIONS** tab and untick **[After]** on the right of the *Ribbon* in the *Timing* group.

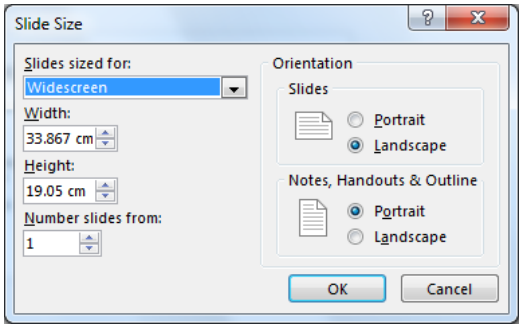
Further options connected with setting up a slide show are available from the **[Set Up Slide Show]** icon on the *SLIDE SHOW* tab. These include setting up a presentation to loop continuously and options for multiple monitors if you have more than one monitor/screen available. See the advanced notes Microsoft PowerPoint: Rehearsing Presentations for further information.

Printing from PowerPoint

Choosing a Slide Format

If you intend to use PowerPoint for anything other than on-screen slideshows, you will need to set up the size of the *slides* you are producing.

1. Move to the **DESIGN** tab then click on the **[Slide Size]** button in the *Customize* group - the following dialogue box appears:



2. Click on the list button for *Slides sized for:*
   - **On-screen Show** - the default, for on-screen slide shows (there are a few different sizes)
   - **A3** and **A4 Paper** - customized for standard A3/A4 format
   - **35 mm Slides** - customized for production of 35mm slides
   - **Overhead** - customized for overhead transparencies
   - **Banner** - customized for banner headings, eg on a display board
   - **Custom** - specified paper size. For producing Research conference posters, see Design & Print Studio Template downloads (only staff can access this page)
3. Having seen how this works, here click on **[Cancel]**

Printing the Presentation

You can print any part of the presentation - the slides, notes or handouts for your audience.

1. Move to the **FILE** tab and choose **Print**

The default printer for lab PCs (**ITS-A4B&W on labprint**) is for black and white; for colour hard copy select **ITS-A4Colour on labprint** using the *list arrow* attached to the *Printer* box

2. If necessary, specify the required *number of* **Copies** and *print range* in **Settings/Slides:**
3. Below the **Slides:** box choose what you want to print from the various choices:
    - **Full Page Slides** - prints one slide per page
    - **Notes Pages** - prints a page containing the slide in miniature plus any extra notes you typed in - use this for your own copy of your presentation
    - **Outline** - prints out just the text on the slides
    - **Handouts** - lets you print several slides (1, 2, 3, 4, 6 or 9) on a page which saves paper if you want to distribute copies of your presentation to your audience

Normally, you would now **[Print]** it but here:

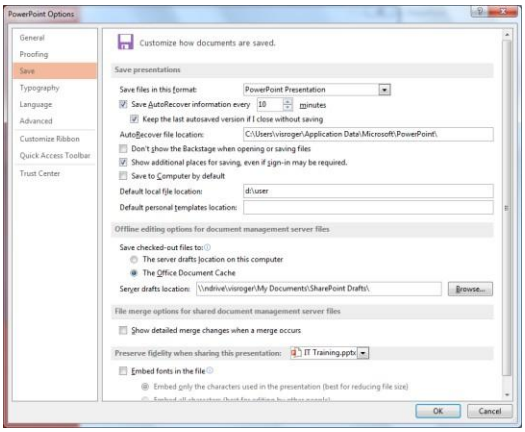
4. Press **<Esc>** to move back to your presentation

Note that *Outline View* isn't covered in these notes. Some people use it to make changes to text in preference to *Normal View* as you don't have to move to a slide to edit it. To see how this works, click on the **Outline** tab above the slide miniatures (in *Normal View*)

Saving Embedded Fonts

If you have chosen to use non-standard fonts for your presentation (eg the special fonts *Rdg Vesta* and *Rdg Swift*, built into the recommended University templates for use by staff) then you might find your slides have changed slightly when you run your presentation on a computer without them installed. You can get over this by saving your file (or PowerPoint show) with the fonts embedded. To do this:

1. Move to the **FILE** tab and choose **Save As** then click on **My Documents**
2. In the *Save As* dialog box, click on **[Tools]** in the bottom centre and choose **Save Options…**



3. Turn on **Embed Fonts in the file** (the bottom option) then click on **[OK]** and **[Save]** your file

Closing the Presentation

You have now finished your introduction to PowerPoint.

1. Save the latest version of your PowerPoint presentation by pressing **<Ctrl s>**
2. To close PowerPoint, click on the red **[Close]** button

Tip: A quick way to close any *Office* application is to press **<Alt F4>**; **<Ctrl F4>** can be used to close a file.