



Excel 1: The Basics & Beginning Formulas Class Guide

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Part 1: Excel Basics

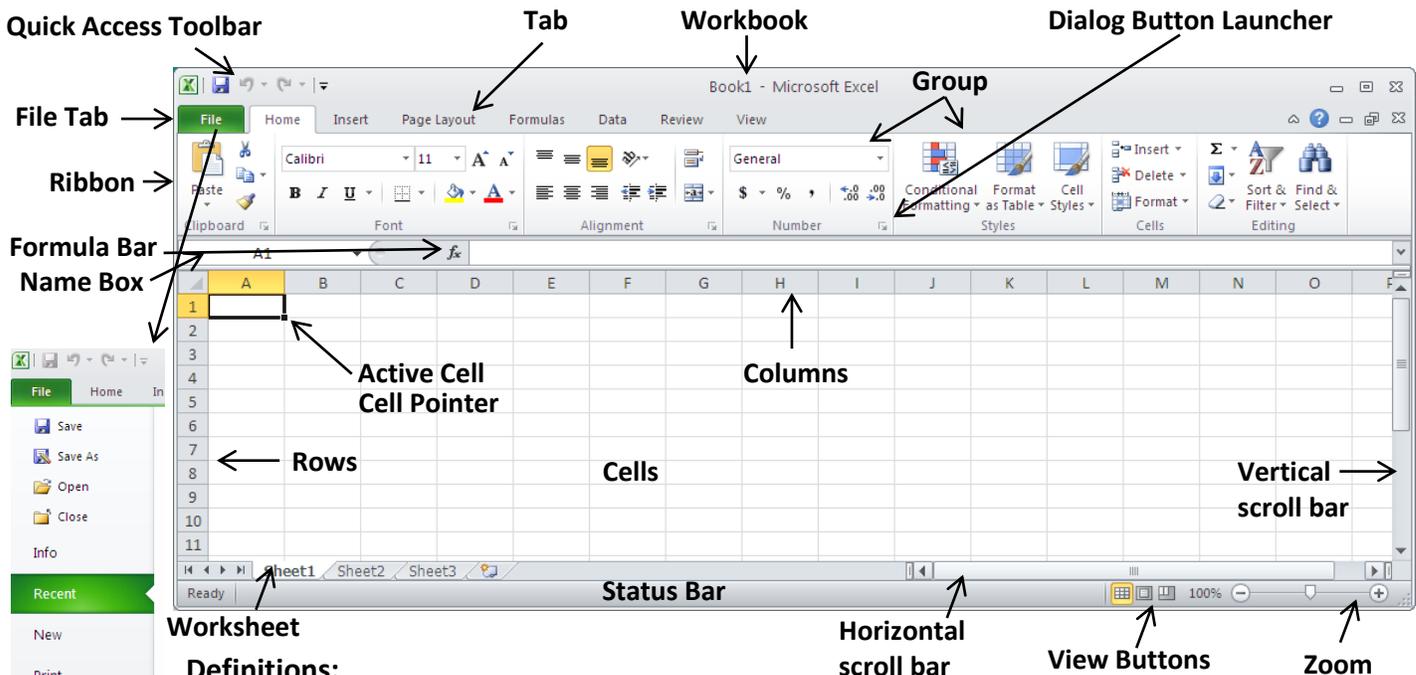
1.1 What is Excel?

Excel is a spreadsheet program you can use for budgets, charts/graphs, inventory tracking, calculations, reports, and spreadsheets of all types that can be used for personal or business reasons.

1.2 What we'll be using

We will be using Excel 2010. This version is similar to 2013 and 2007 but quite different from earlier versions. The **.xlsx** files are not compatible with pre-2007 versions. For example, to view 2010 files in 2003, you will need to make sure your version of Excel is fully patched and then download a free converter (<http://www.microsoft.com/downloads/>). We will talk about this further below.

1.3 Key Terminology



Definitions:

Workbook = a spreadsheet/Excel file

Worksheet = part of a workbook

Cell = a location in a worksheet where you can type letters, numbers, dates, formulas, etc.

-It is created wherever a column (which is labeled by a letter...A, B, C, etc.) and a row (labeled by a number...1, 2, 3, etc.) intersect.

-Your Excel spreadsheet is actually a bunch of grid lines that make up cells. These grid lines do not print out (unless you force them to).

Cell Reference = identifies the location of a cell; It is composed of the Column letter and Row number. For example, the cell in the upper left hand corner of the worksheet where Column A and Row 1 intersect is cell A1.

Active Cell = the cell you will be typing in, formatting, etc.

Cell Pointer = the black outline of the active area

Formula Bar = the long white box on top of the worksheet that displays whatever is in the Active Cell

Key Tips = Press ALT to get to these new keyboard shortcuts; press Alt again to toggle key tips off. The old keyboard shortcuts still work!

1.4 Saving & Converting

Save, Save, Save! To protect yourself from losing data, always remember to save your workbook once you create a new one as well as when you make significant changes to your file.

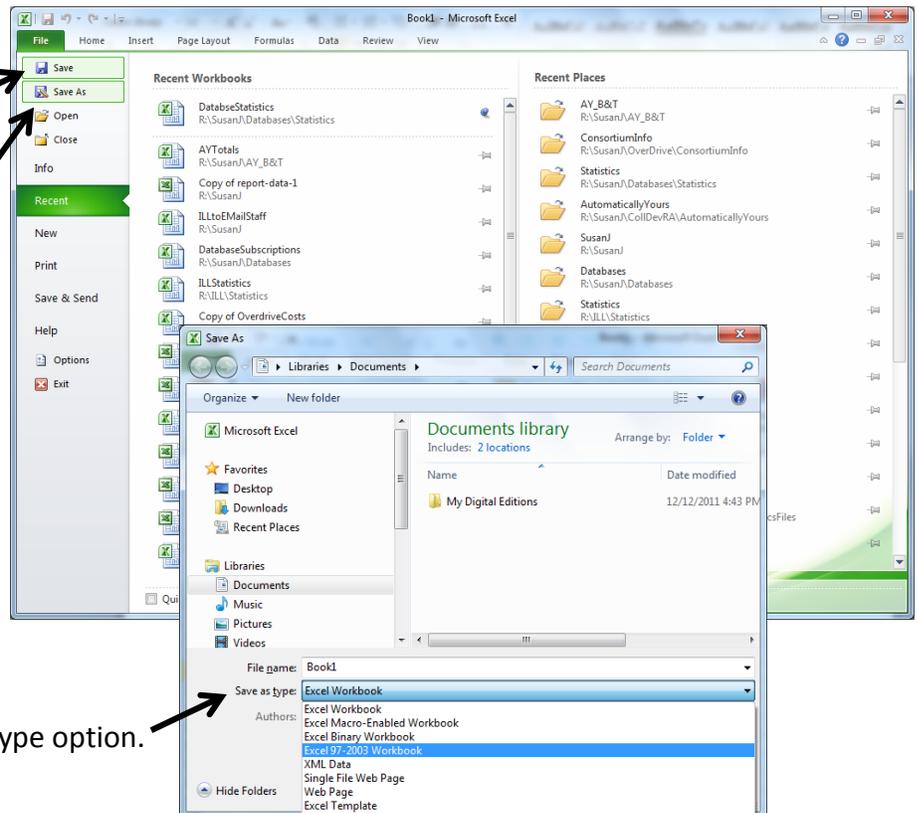
To save your workbook:

- Click on **File**
- Choose (1) **Save** to save the file as is with its current name and location OR (2) **Save As** to save the file with a new name, format*, and/or new location.

TIP: Click on the pushpin to the right of an item in Recent Workbooks to make it always visible. The same goes for Recent Places.

To convert your workbook to another format:

- Click on **File**
- Choose **Save As**
- Select the appropriate Save as type option.
- Click **Save**



Part 2: The Data

2.1 What can go in an Excel worksheet?

There are five “things” that can be entered:

- 1) **Text** – letters, symbols, some numbers (ex: Phone numbers)
- 2) **Numerical Values** – includes dates and numbers
- 3) **Formulas** – usually starts with “=”
- 4) **Graphics** – photos, images, etc.
- 5) **Formatting** – colors, shading, etc.

2.2 Moving Around and Selecting a Single Cell

When a cell is active—AKA *selected*—any actions you take from typing to formatting will affect that cell. Here are some ways to select a single cell:

Navigation Keys	
Keystroke(s)	Action
RIGHT ARROW	Move one cell to the right
LEFT ARROW	Move one cell to the left
DOWN ARROW	Move down one cell
UP ARROW	Move up one cell
CTRL + RIGHT ARROW	Move to last cell in row
CTRL + LEFT ARROW	Move to first cell in row
CTRL + UP ARROW	Move to first cell in column
CTRL + DOWN ARROW	Move to last cell in column
TAB	Move one cell to the right
SHIFT + TAB	Move one cell to the left
ENTER	Move down one cell
SHIFT + ENTER	Move up one cell
HOME	Move to beginning of row
CTRL + HOME	Move to beginning of worksheet
CTRL + END	Bottom-right corner of worksheet
PAGE UP	Move up one screen
PAGE DOWN	Move down one screen
ALT + PAGE UP	Move left one screen
ALT + PAGE DOWN	Move right one screen
CTRL + PAGE UP	Move to previous worksheet
CTRL+ PAGE DOWN	Move to next worksheet
F5, CTRL + 5 then type a cell address (such as Q301)	Go immediately to cell address you typed

You can also select a range of cells so you can perform an action on several cells at the same time:

- Drag your mouse from one cell to another
- Click one cell, press and hold **SHIFT**, click another cell
- Click a *column letter* to select an entire column
- Click a *row number* to select an entire row
- Click the *gray rectangle* above the number 1 and to the left of letter A to select the entire spreadsheet (or press **CTRL+A**)
- Select your entire *data* area by clicking on cell A1 and then pressing **CTRL+SHIFT+END**
- Select a cell or range, press and hold **CTRL**, then select another cell or range of cells that are not necessarily contiguous to where you started

2.3 Entering Data

Once you've selected a cell, type in your data, and press **Enter**, **TAB**, or click on the checkmark in the Formula Bar.

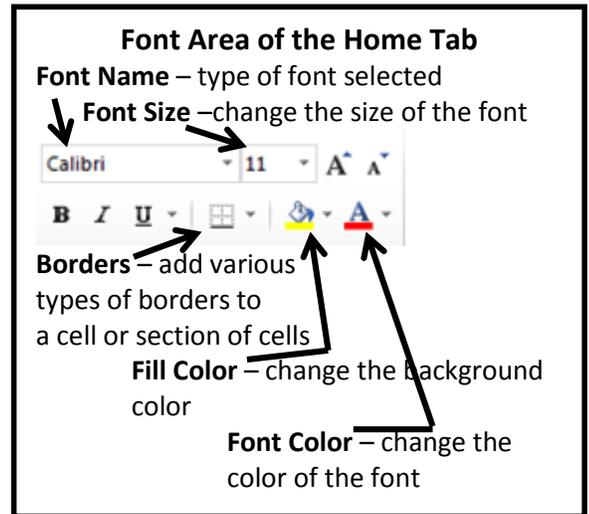
2.4 Editing Your Cell

Once there is data in a cell, you can edit it by...

- Select the cell
- Press **F2** or double-click the cell to get the cursor to appear
- Make your changes (**Backspace** and **Delete** can be used to delete if necessary)
- Press **Enter**, **TAB**, or click on the checkmark in the Formula Bar.

You can also replace or overwrite data in a cell easily by...

- Select the cell
- Type in the new data
- Press **Enter**, **TAB**, or click on the checkmark in the Formula Bar.



Familiar Edit commands work in Excel for individual cells or cell ranges including:

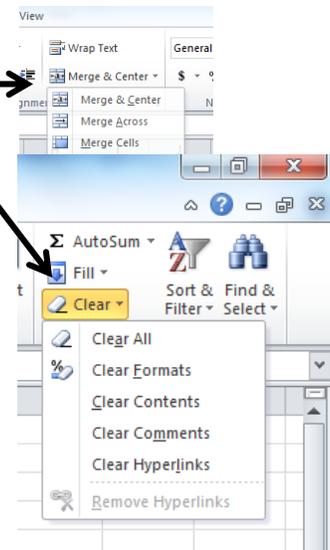
- **CTRL+X** = Cut
- **CTRL+V** = Paste
- **CTRL+Y** = Redo
- **CTRL+C** = Copy
- **CTRL+Z** = Undo

NOTE: When a cell or range of cells is selected for copying or cutting, the whole area will have a moving line around it until you pasted a cut area. For copying, the moving line will remain until you double-click off of the area or press **ENTER**.

If you need a bigger cell, you can stretch a column and/or row (as discussed later) or you can use Merge & Center to combine cells:

- Highlight the cells you want to merge.
- On the Home tab of the Ribbon, click on **Merge & Center**

You can also delete various parts of a cell using the **Clear** drop down list on the far right of the Ribbon.



2.5 Data on the Move

You can easily move a cell or cells to a different location on your spreadsheet.

- Select the area you want to move
- Move your mouse to the edge of the highlighted area until it becomes 4-arrows.

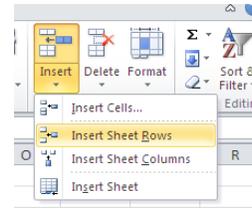


2.6 Formatting

There are built in cell formats or types in Excel which come their own default formatting rules. These include:

- **General** - The default format; it displays numbers as integers, decimals, or in scientific notation if the value is too wide to fit into the cell.

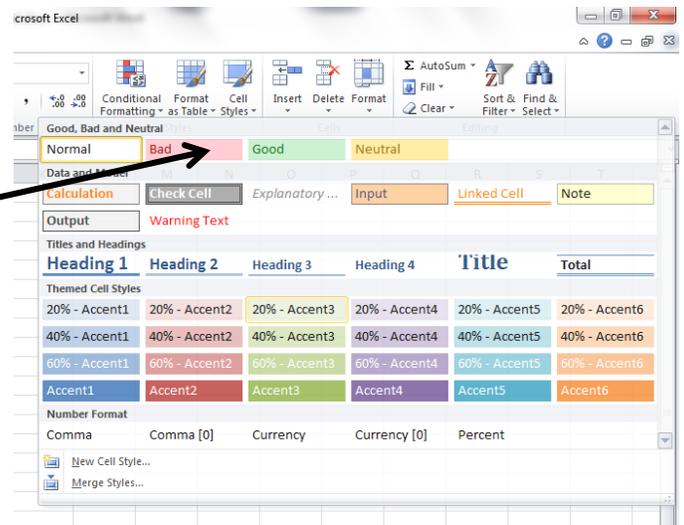
- **Number** - Enables you to specify the number of decimal places, whether to use your thousands separator (for example, a comma) to separate thousands, and how to display negative numbers.
- **Currency** - Enables you to specify the number of decimal places, to choose a currency symbol, and to display negative numbers. This format always uses the system thousands separator symbol (for example, a comma) to separate thousands.
- **Accounting** - Differs from the Currency format in that the currency symbols always line up vertically, regardless of the number of digits displayed in the value.
- **Date** - Enables you to choose from a variety of date formats and select the locale for your date formats.
- **Percentage** - Enables you to choose the number of decimal places; always displays a percent sign.
- **Fraction** - Enables you to choose from among nine fraction formats.
- **Text** - When applied to a value, causes Excel to treat the value as text (even if it looks like a value). This feature is useful for such items as numerical part numbers and credit card numbers.



(From http://www.msoffice.us/Excel/2010Data_Types.htm)

Cell Styles are built in sets of formatting features that may include font size, bold, cell color, etc. To access Cell Styles...

- Select the cell or cells you want to change
- Click on **Cell Styles**
- Choose your preferred style.



Format Painter can aid you in easily copying one cell's formatting to another:

- Select the cell with the formatting you desire
- Click on the **Format Painter** button on the left side of the Home tab of the Ribbon
- Click on the cell(s) you want to change.

2.7 Changing Columns & Rows

As with most Microsoft programs, there are many ways to do one thing. Here is an overview of changing columns and rows.

Stretching Columns and Rows –

Method #1: Grab the border of the row or column in the gray area of the worksheet. When the mouse turns into a black line with arrows pointing left and right, drag the column/row to your desired width.

Method #2: Double-click on the black line dividing the columns/rows in the gray area. This should stretch the column/row to the exact width.

Method #3: Highlight the column(s), click **Format** → **Column Width** on the Home tab of the Ribbon.

Inserting Columns & Rows – You may find later that you need to insert a column or row in your worksheet.

Method #1: Right click on the Column Letter to the right of where you want the column to go OR right

click on the Row Number below where you want the new row to go. Then left click on Insert.

Method #2: Click on **Insert** → **Insert Sheet Rows/Columns** on the Home tab of the Ribbon

Part 3: Auto Features

3.1 Autofill

This feature allows you to easily copy what's in a cell or to complete a list. For example, type January in cell A1. Be sure your Cell Pointer is on cell A1 and put your mouse on the little black box in the bottom right corner of the cell. Your mouse becomes a black cross. Click and drag your mouse down to cell A12, and you should see the rest of the month's automatically inputted. You can use the **Autofill Dialog** to specify which option you need. 

3.2 Auto Complete

This can be useful when you are entering a lot of repeat data. As you start to type in a word that's already been typed, Excel will complete the word for you. If it's not what you actually want, just keep typing the rest of the word.

3.3 AutoSum

This handy tool allows you to add a row or column easily. Simply put your cell pointer where you want the answer to go then click on AutoSum on the Home tab. 

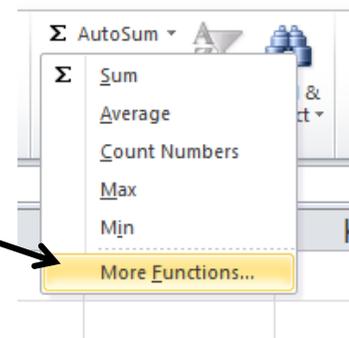
NOTE #1: As you incorporate functions such as AutoSum into your spreadsheet, you may find that instead of the result of the function you see "#####". This means that your column is not wide enough to show an entire number/date. Simply widen your column and you should see your result.

NOTE #2: You can easily copy and paste formulas throughout your spreadsheet which can potentially save you time as you set up your spreadsheet. You can also use Autofill to copy.

Part 4: More Formulas

4.1 General Information

We will explore other functions besides AutoSum (there are hundreds of them!) as well as create a percentage formula. You can get to all functions in Excel by clicking on **AutoSum** → **More Functions** or by clicking on the **Formulas** tab of the Ribbon.



4.2 Average

Average does just what it says...it returns the average number from a range of cells. It is **=average()** although you can also find it off of the AutoSum menu.

4.3 Max

Max returns the maximum value from a range of cells. It is **=max()** and can found off of the AutoSum menu as well.

4.4 Count

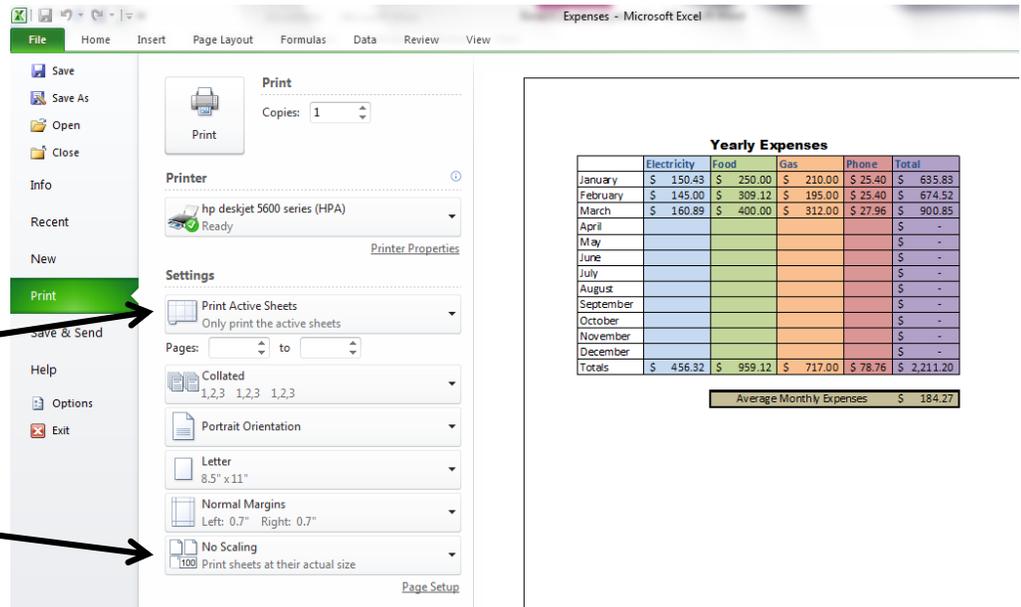
COUNT is one function from a group called *Count Functions*. Its goal is to add up the cells in a selected range that contain numbers (not text...just numbers). It is **=count()** and can also be found on the AutoSum menu.

Part 5: The End Game

5.1 Printing Prettily

Before printing an Excel spreadsheet, always look at the print preview before printing. You can do this by clicking on **File** and then **Print**. The print preview shows up on the right. You can play around with the **Settings** off the Print screen to get your spreadsheet printed the way you want.

NOTE #1: Scaling can be very helpful for fitting your spreadsheet nicely onto an 8½" x 11" sheet of paper.



NOTE #2: If you find that there is a lot of blank columns or rows that are included in the Print Preview, go back to your document and press **CTRL+END** to see the end of the print area. You may find that there is one cell you typed it accidentally that needs to be cleared/deleted.

NOTE #3: Don't forget that you can always save your spreadsheet as a **PDF** for other people to print easily.

5.2 Reopening Your Work

You can open an existing file by going to the **File** tab and clicking on **Open**. If you don't see your file, make sure you are looking in the right folder

5.3 Templates

Excel has built in templates that can save you a lot of time when making workbooks for common things such as invoices or forms. You can access the templates by going to the File menu and selecting **New**. Many of the templates are housed at Office.com.

5.4 HELP!



Excel has a help feature that can aid you in refreshing your memory on certain tasks or by even learning new tasks. Help can be reached at by clicking the Question mark in the upper right hand corner. You will most likely be directed to Office.com's online help, but there is an offline version if needed.

5.5 Additional Help

Below are some websites that might be of help to you:

Excel Class Webpage: <http://www.greenwoodlibrary.us/excelclass.asp>

www.inspire.in.gov - Click on the Testing & Education button on the bottom left (then click on Career Tools and Basic Computer Skills—you will need to create a free account)

<http://www.gcflearnfree.org/> - A great collection of tutorials on a wide array of subjects including Microsoft Excel 2007, 2010, and 2013.

<http://www.free-training-tutorial.com/>

<http://office.microsoft.com/en-us/excel/>

<http://spreadsheets.about.com/>

<http://www.customguide.com/cheat-sheets/> - Free cheat sheets for most Office programs.

Thank you for coming!

Please fill out a Computer Class Survey before leaving.

www.greenwoodlibrary.us/computersurvey.asp

Instructor's Name: Susan J. Class: Excel 1