

Basic Excel

November 14, 1 p.m. to 3 p.m.

Dr. Mary Gerard Beckmann, ponotoc2@yahoo.com 314-791-6685

Notes:

- This document is at <http://www.marybeckmann.com> (click on the third tab down, at the left, **Basic Excel Lesson**)
- For easy reference, headings in this document are in **red** and activities are in **blue**
- This class covers the basics – next class will review basics and include more intermediate functions of Excel, and include projects and formulas and functions, using templates and styles and designs

A. What is Excel?

1. Excel is an **electronic spreadsheet or worksheet** that is used for storing, organizing and manipulating data
2. The latest version is **Excel 2010**.
 1. Data in Excel can be words or numbers. Users can move and organize sheets in Excel as in a three-ring binder
 2. Because Excel can add, find the average, etc. of a row or column of numbers (functions and formulas can be basic or advanced) a row or column of numbers can be easily organized and viewed

B. What can you do with Excel?

1. Ideas for using Excel might be to create a budget, create a time line, chart and graph progress on a job or goal, take a survey and gather data then create a graph for a pictorial representation

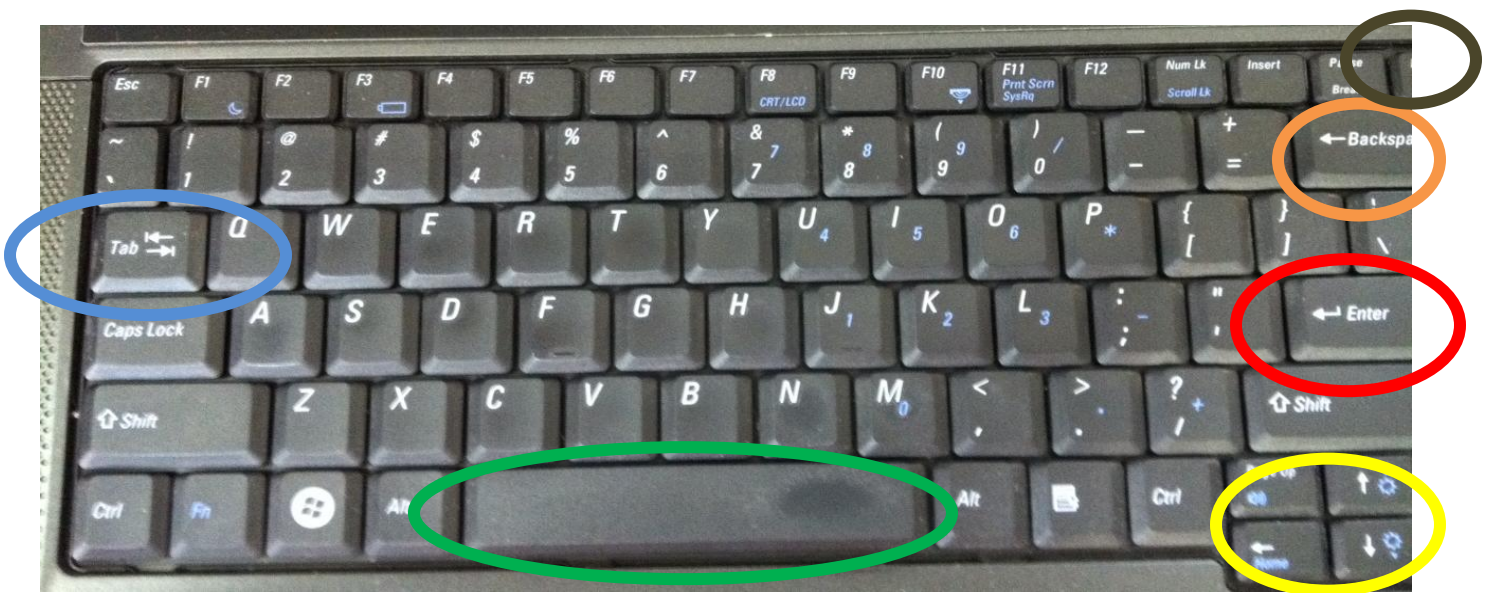
C. Terminology

1. **Desktop** – when the computer first shows on the monitor the desktop, or computer work area shows
2. **Task bar** – programs that are open will appear at the bottom of the window as an icon or name
3. **Format** – to change the appearance of words - data in a cell - color, font, size, for example or change the looks of an entire worksheet by adding color to columns and rows
4. **Right click, left click** – mouse actions that provide options, shortcuts to copy, paste, delete for example
5. **Cursor, blinking cursor** – the cursor blinks when the mouse clicks inside a cell – this tells the user that the computer is waiting for something to be entered
6. **Data** – content, words or numbers – in Excel, words or numbers (data) are contained in individual cells

7. **Ribbon** – the ribbon replaces tool bars and menu bars in earlier versions of Office products – **File** for example shows print and save options, **Home** provides options for font, size, color, etc.

D. Terminology relevant to navigating within Excel

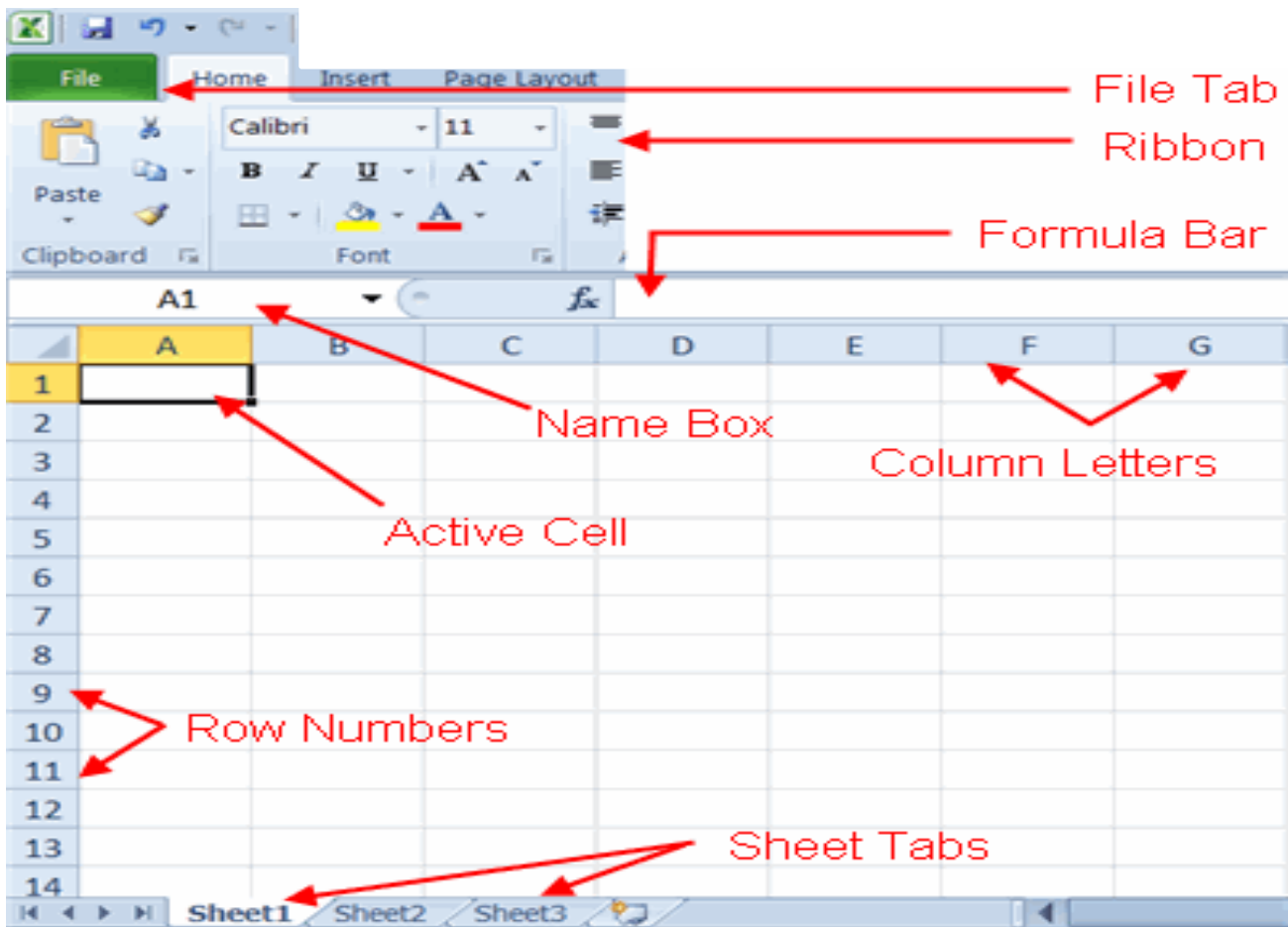
1. **Arrow keys, tab key, enter keys** on the keyboard are used to move through Excel - these can be changed, but the defaults are as follows:
 - a. The **tab key** moves the cursor across the page
 - b. **Enter** moves the cursor down
 - c. **Arrow keys** move the cursor up, down, left, or right
2. **Backspace, space bar** on the keyboard are used to delete data in a cell
3. **Cells** – rectangles in Excel that contain individual data - **numbers across the top, letters down the side** – the name of the cell is where any two cells meet, or intersect



E. Open Excel – various ways

1. **Right click** on the desktop and choose **new** and choose **Microsoft Excel Worksheet**
2. Go to **start** and **(all) programs, Microsoft Windows, Microsoft Excel**
3. **An Excel shortcut** may appear on your desktop – double click the icon to open Excel (shortcuts are icons that act as leaders that lead back to the original program, shortcut icons will show a small black arrow in a white box at the bottom left of an icon)

Activity – open an Excel workbook using one of the above three methods and let's explore the Excel window



Taken from <http://spreadsheets.about.com/od/excel101/ss/2010-06-26-Parts-Of-The-Excel-2010-Screen.htm>

F. Entering data

Activity


1. Locate the cell where the letter **D** and the number **1** meet
2. Position the mouse inside this cell and **click one time**
3. The cell is outlined in black indicating it is the **active cell**
4. Look in the **Name Box** and you'll see the cell named **D1**
5. **Type your first name**
6. Look above cell **D1** and you'll see your name in the **Formula Bar**
7. To edit data, click in the cell first, then click in the Formula Bar and delete or add content
8. Hit enter or the tab key to move your cursor off any cell – data won't remain permanently in the cell until the mouse is moved away from the cell
9. To delete all data in the cell, click with your mouse inside the cell and tap the **space bar** or the **delete** key on your keyboard
10. Click **undo** and your name will reappear
11. Another way to delete information is to right click and choose **clear contents**, right clicking also gives options to **delete entire rows or columns**

G. Formatting and adding data

1. Click on the **D1** cell that contains your name
2. Click on the **bold** and **italicize** icons on the **Home ribbon** area
3. Click on the **font, size, and color** and experiment (notice how the larger fonts extends your name out of the cell – we'll discuss what to do about that soon)
4. Click off of that cell and into another cell to make the changes permanent
5. Click back on the cell that contains your first name
6. Click your mouse inside the **Formula Bar**
7. Use your arrow keys, or your mouse, to position the cursor at the end of your first name
8. Type your **middle or last name**
9. Click **enter** on your keyboard to move away from the cell to make changes permanent

H. Enlarging cells

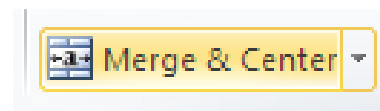
Activity

1. Click on cell **D1** to select it
2. Click on the **Home ribbon tab**, click on the down arrow below **Format**, select **Auto Fit Column Width or AutoFit Row Height** (entering a number is also an option)
3. The cell that contains your name will be extended
4. To **manually adjust cells**, width or length, position the mouse on the light blue line between the numbers or letters until the mouse turns into a symbol similar to this  and hold the left mouse button down and drag to enlarge the column or row
5. Click off of your name or tap enter on your keyboard to move off the cell and make the changes permanent

I. Merge and Center, extending data across cells

Activity

1. Click on cell **D1**, hold the left mouse button down, drag your mouse across **E1, F1, G1, and H1** and release the mouse button – all these cells will be highlighted
2. Look for the **Merge and Center** icon in the ribbon
3. Click off the cell and now your name appears centered across four cells
4. Click back on the cell and choose the **Merge and Center** icon again to undo



J. Separating words within a cell

Activity

1. **Click on the cell** that contains your names
2. In the **Formula Window** situate your mouse cursor between both names
3. Hold down the **Alt key** and then the **Enter key**
4. Click off the cell - now your names appear on separate lines but contained in the same cell

K. Vertical

Activity

Cells can be rotated, positioned horizontally or vertically

1. **Right click on the cell** that contains your names
2. Choose **Format Cells** – note the options, many the same as in the Ribbon arrow
3. To change the direction of the cell, move the **red dot** next to the word **Text** in the larger window then click **OK**

L. Sheet tabs

Sheet tabs are tabs across the bottom left of the Excel worksheet– each tab can be a separate worksheet containing individualized data a tab for each month in a year, i.e.

Activity – naming and creating sheet tabs

1. Position your mouse on the **Sheet1** tab - right click – choose **rename**
2. Type **January** – you can have a separate sheet for each month of the year, save and name your Excel worksheet document **2010** –all the calendar months of the year 2010 will be contained in one document
3. Left click on the icon after **Sheet3**, the last sheet - a new sheet appears - right click on the new sheet and note the rename option – this is where you'd label the new sheet)
4. **Note:**
 - a. Worksheets can be moved in front of or behind other tabs by holding the mouse button down and dragging the tab to a new location
 - b. Worksheets can be copied and pasted if you decide you want the same information from one worksheet copied into another worksheet (right click and choose **move or copy**)

M. Auto Fill

Auto fill is when a series of data is automatically filled into cells on a worksheet

Activity

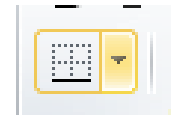
1. Click on cell B2 and enter the number 2, click on cell B3 and enter the number 4, click on cell B4 and enter the number 6, click off the cells
2. Click with your mouse inside cell B2, hold the mouse button down and drag through all three cells
3. Notice a black square at the bottom right – this is called a fill handle
4. Hold the mouse button down and drag the fill handle down through 5 or 6 empty cells – data entered in the first three cells determine the pattern of the fill – in this case the series will be counting by 2s
5. Try this with January, February, March...

N. Add lines

Adding lines and borders can be used to separate cells, separate data from totals, i.e.

Activity

1. To put a border around cells, highlight the cells then click on the border icon
2. Click on the cell that contains your name
3. Click on the border icon and choose the border, **thick box border**



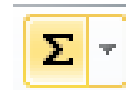
O. Simple formulas

Activity

1. Enter number 4 in cell A1, enter number 6 in cell B1, enter the number 12 in cell C1
2. Enter the number 8 in A2, enter the number 10 in cell B2, and the number 2 in cell C2
3. Your spreadsheet should look like this

	A	B	C	D
1	4	6	12	
2	8	10	2	
3				
4				

4. Position your mouse in D1
5. Click on the **black down arrow to the right of the sum icon**
6. Choose **sum**
7. A formula will appear, hit **Enter**



8. Click out of cell **D1** then back into cell **D1**
9. Hold the left mouse button down and drag the handle to fill cell **D2**
10. The sum of the numbers that appear can be formatted using the same methods used for formatting data - for example; change color, bold, underlining etc.
11. Erase the sum formula in D1 – click on D1 and click the space bar
12. Click off D1 then back into D1
13. This time choose **Average**, then choose **Count Numbers**
14. **Note:** formulas can be dragged across multiple columns of numbers

P. Create graph

Activity

1. **Highlight** all 6 cells A1 through C2
2. In the Ribbon area choose **insert** then **Bar** and a chart will be created
3. Experiment, this time highlight A1 through D2 and choose other charts
4. Change the numbers in cells A1 through C2 and watch as the graph reflects the changes made in the data cells

Q. Alternatives – Open source software

OpenOffice, Google Docs, QuickOffice for mobile devices

- Q. Printing** – you can print a single worksheet in Excel, a selection of highlighted data, or an entire worksheet, you can freeze cells so they don't print

Activity

1. Choose **File, Print**, and make a selection under **Settings**
2. To freeze cells so they don't print, right click on the entire row or column and choose **Hide**