

Microsoft Excel: A Gradebook



Excel Basics

Spreadsheet: The primary document you use in Microsoft Excel to store and work with data. A spreadsheet consists of cells organized into columns and rows and is always part of a workbook. Also called a worksheet.

Workbook: The file in which you work and store your data. It can be comprised of many related spreadsheets all in one file.

Cell: The basic building block of a spreadsheet. A cell is defined by the intersection of a row and column. For example, Cell B5 is the intersection between column B and row 5. A cell can contain Labels (text entries), Values (numbers to use in calculations), or Formulas (that perform calculations)

Moving Around the Spreadsheet

- **Tab**- moves the cell selector to the right one cell.
- **Shift+Tab**- moves the cell selector to the left one cell.
- **Enter**- moves the cell selector down one cell.
- **Shift+Enter**- moves the cell selector up one cell.
- **Arrow keys**- move the cell selector one cell in that direction.

Selecting A Cell

Before you make any changes to a cell, you first need to select it. Click on the cell to select it or double click to edit its contents.

Selecting More Than One Cell


1. To select many cells, just click and drag the mouse until all are selected.
2. If the cells you want to select are not next to each other, hold down the **Ctrl** key and click on each cell.
3. To select an entire row or column, click on the row or column header.
4. To select the entire sheet, click on the box in between the first column and first row.

The Changing Cursor

You will notice as you move the cursor over the spreadsheet that the cursor changes.

- **White Plus Sign**- If you click and drag, you will select more cells
- **White Arrow**- If you click and drag, you will move the contents of the cell.
- **Black Plus Sign**- If you click and drag, you will complete a series (more about this later).


Fixing Your Mistakes

1. If you make an error at any time, whether you press a button you didn't mean to or you make a change that you don't like, first stop what you are doing.
2. Choose **Edit->Undo**. This will undo that last change you made to your document.
3. You can Undo up to 16 changes by choosing **Edit->Undo** repeatedly.
4. You can also use the **Undo** button on the toolbar, which works exactly the same way. 


Entering Information in Excel

1. Select the cell you would like to enter information in.
2. Type your data.

Changing Fonts

1. To change the Font, first select the cell you want to change by clicking on it.
2. You have the same choices as in any word processor for fonts. Your choices for the type of font, font size, and appearance (bold, italic, and underline) are all on the formatting toolbar. 

Merging Across Columns

1. You will notice that our title takes up the size of two columns, but is still all contained in cell A1.
2. In order to center the title at the top of the page, you first have to merge all of the columns that it occupies.
3. Select all of the cells that you would like to merge and click on the **Merge and Center** button. 

Changing Column Width

Since cells start out all the same size, you will see that some words may not fit in this small amount of space.

- To **manually** resize a column, place your cursor in the column header between two columns. Your cursor will change to a double arrow. Click and drag the column divider to the size you want.
- To **automatically** make the column fit the largest item in that column, place the cursor at the junction of two column headers and double click. This can also be used to make a column smaller if there is no item that is larger than its cell.

Alignment

1. You can change the alignment of text within a cell. First select the cell(s).
2. Click on an alignment button on the toolbar to choose Left, Center, or Right

alignment.



Inserting a Row or Column

1. At some point, you may find that you have left out some information that belongs in the middle of your information.
2. Select a cell in the column to the right of where you would like to insert a column or in the row below where you would like to insert a row. In other words, a column will always be inserted to the left of your cursor, and a row will always be inserted above your cursor.
3. Choose **Insert->Columns** or **Insert->Row**.


AutoFill

1. You can use AutoFill to complete a series of numbers or letters when you have only typed in the first few in the series, such as sequential numbers or days of the week.
2. Select the cells that contain the start of the series.
3. Place the cursor over the square in the right lower corner of the selection. You will notice that your cursor changes to a **+**.
4. Click and drag the selection until you have enough lines in the series. This works for days of the week, months, dates, times, and many number sequences.

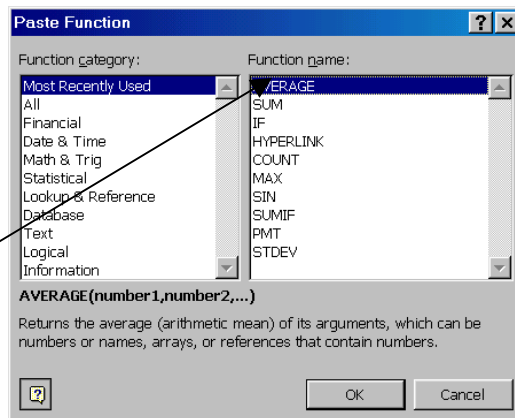
Excel as a Gradebook

1. Type the information in the Excel spreadsheet as you see below.

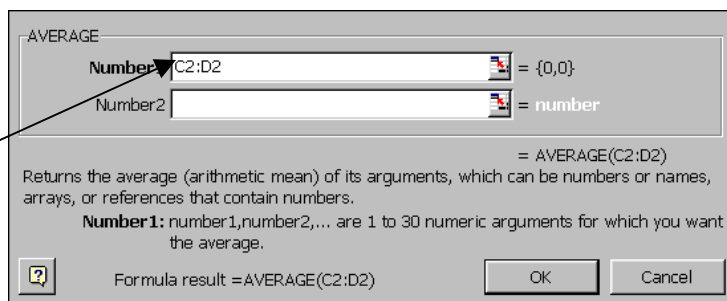
| First Name | Last Name | Test 1 | Test 2 | Test Avg | Quiz1 | Quiz2 | Quiz3 | Quiz Avg | HW1 | HW2 | HW AVG |
|------------|-----------|--------|--------|----------|-------|-------|-------|----------|-----|-----|--------|
| Jim | Smith | | | | | | | | | | |
| Ashley | Robbs | | | | | | | | | | |
| Alex | Roberts | | | | | | | | | | |

2. Click on cell E2. Click on the  button on the toolbar.

3. In the Paste Function window make sure:
 Most Recently Used is selected under Function Category.
 Average is selected under Function Name.
 Click OK.



4. Click and drag the Average Function Window to the middle of the screen. Click in cell C2 and drag it through cell D2. Your Average Function Window should appear like the one to the right. Click OK.



5. Repeat this for cell I2 (by highlighting F2,G2,H2) and cell L2 (by highlighting J2 and K2).

6. Click on cell E2. Move the arrow to bottom right corner of the cell so the arrow turns into a cross.

7. Click and drag down to the last student. This will fill the average formula for all of the students. This is called Fill Down. Try this for the quiz and homework average.

Now enter grades for all of the students!

Let's compute a final grade.

8. Type the following in:

- N1: Test Avg.
- O1: Quiz Avg.
- P1: HW Avg.
- Q1: Final Avg.
- R1: Letter Grade.

Click in cell N2 so the cursor appears. Type =E2

Click in cell O2 so the cursor appears. Type =I2

Click in cell P2 so the cursor appears. Type =L2

9. Now Fill Down for the remaining students.

10. Now find the average of N2,O2,and P2. Fill the averages down.

How do I change the final average into a letter grade?

Click in cell R2.

In the Data

Entry Area type:



=IF(Q2>89.4,"A",IF(Q2>81.4,"B",IF(Q2>74.4,"C",IF(Q2>69.4,"D",IF(Q2<64.4,"F")))))

Fill Down for the remaining students.

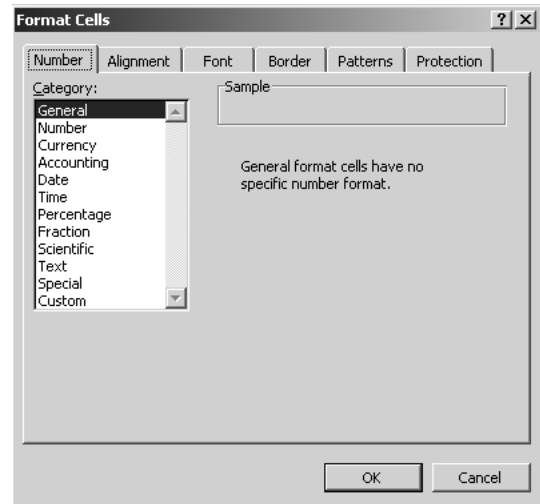
How do I assign weights?

⇒ **Hit F11 to make a graph!**

Formatting Cells

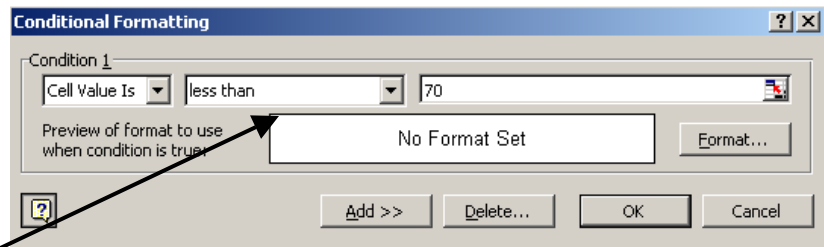
Format | Cells

- Numbers
Category | Number
Choose the number of decimals.
- Alignment
Orientation
- Font
- Border
Inside
- Patterns
- Protection



Conditional Formatting

This will allow you to set a value to change color automatically.
For example, every grade under 70 will automatically turn red.

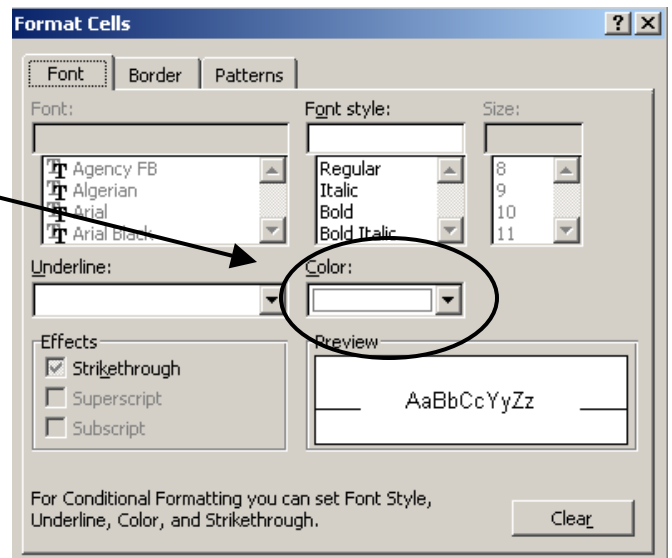


1. Leave "Cell Value Is"
2. Choose less than
3. 70
4. Click **Format**
5. Select your color from the drop down.

⇒ **Other Conditions can be set by clicking "Add."**

Adding Color

Click on the row number to select the entire row.
Click on the column letter to select the entire column.



will change the background of cells




will select the font color

Freezing Your Headings

1. If you have a large spreadsheet that spans the length of more than one page, it would probably be helpful to be able to still see the column headings when you scroll down the page so you know what you are looking at. This is called Freezing Panes.
2. Select a few cells in the row just beneath your headers.

Choose **Window->Freeze Panes**.


Sorting

1. You can sort your data in alphabetical or numerical order, in ascending or descending order.
2. Select all of the cells the are involved in the sort. If you only select one column, the data will be sorted in that column, but any data that is supposed to line up with it in other columns no longer will.
3. Click on the **Sort Ascending** or **Sort Descending** button. The image shows two buttons side-by-side. The left button has a blue 'A' above a red 'Z' with a downward arrow, representing 'Sort Ascending'. The right button has a red 'Z' above a blue 'A' with a downward arrow, representing 'Sort Descending'.
4. These buttons will automatically sort by the first column. If you would like to sort by another, choose **Data->Sort**.

Changing Tab Names

1. You may want to change the names of your tabs at the bottom of the screen to be a little more descriptive than Sheet1, Sheet2, etc.
2. Right click on the tab you would like to rename.
3. Choose **Rename**. The name will be highlighted, just type in the new one.
4. Press **Enter**.
5. Rename each worksheet to a marking period. For example, rename Sheet 1 to MP1.

Formulas


1. Formulas are used to make automatic mathematical calculations. The best thing about formulas is that they will automatically update if the contents of a cell changes.
2. To use the Function Wizard, first select the cell you would like the result of the formula to appear in.
3. Click on the **Paste Function** button on the toolbar. The image shows a small button with a grey background and a blue 'fx' symbol, representing the 'Paste Function' button.
4. Choose the formula you would like to use. Click on **Okay**.
5. Excel will choose what cells it thinks you will want to use for this formula. If it is right, click **Okay**. If not, click in the box next to **Number One** and enter the correct cells.

Writing Your Own Formulas

1. You do not have to use the formula wizard to write your equations, especially if they are simple ones.
2. Select the cell that you want the result to be displayed in.
3. Type in the equation. The general format for an equation is = (equal sign) and then a mathematical equation using a combination of numbers, cell numbers, and functions, such as =(B7+D6)*4 or =AVERAGE(A3:A13).
4. Press **Enter** and the result of the equation will be displayed in the cell.
5. As a shortcut, you don't have to type the cell number. Once you type the =, you can just click on the cell and its number will be entered automatically.

⇒ Use **F9** to recalculate!

AutoSum

1. Since it is very common to want to add up all the items in a column or row, there is a special button for it on the toolbar.
2. Select the cell you want to have the result of the sum in.
3. Click on the **AutoSum** button. 
4. There will be a flashing dashed line around the cells Excel thinks you want to sum. If these are not the cells you want to sum, select the ones you do want.
5. Press **Enter**.

Hiding Columns

Select the columns you want to hide.
Right click | Hide

Printing Your Excel Spreadsheet

1. The first thing to do when printing is to select what you would like to print.
2. Select all the cells on your spreadsheet that have entries. If you have a chart, be sure to highlight the cells behind the chart to select it also.
3. Choose **File->Print Area->Set Print Area**. You will notice that a dashed line appears around your selection.
4. Now choose **File->Print** to print your document.
5. If you would like to change the area to print, choose **File->Print Area->Clear Print Area** and start over with step #2.

Print Preview Choices

1. When you are looking at a print preview, you will see some choices that may help you in working with your document. Choose **File->Print Preview**.
 2. Choose **Setup** from the button bar above the preview.
- **Page**- This tab gives you choices for the layout of your page. You can change the orientation of the page and the scaling (how much of the page your selection fills).
 - **Margins**- If you need to change the size of your margins, this is where you do it. You can also center your selection on the page here.
 - **Header/Footer**- This is where you can create a header or footer that will be displayed on each page. There are choices for typical headers and footers if you click on the box next to **Header:** or **Footer:**. To create your own, click on **Custom Header** or **Custom Footer**.
 - **Sheet**- Here, you can choose what you would like to be printed on the page. **Gridlines are not included by default**, but if you have a complex spreadsheet, it may be easier to read with them printed out. You can also choose the order to print out your selections if more than one fits on a page.

Advanced Features

- Linking sheets
- Mail Merge

Online Help

http://www.wcu.edu/ccenter_inf/CatOnline/MSEX/

<http://www.intelinfo.com/office.html>

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