

Excel 2016 - Beyond the Basics

Contact Pam - pamela.stephens890@gmail.com

You may access this agenda at:

<http://pamstephens890.weebly.com/>

Introductions

What do you want to be able to do with Excel by taking this class?

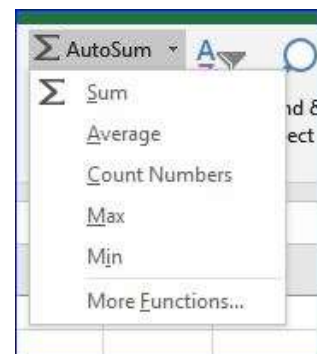
Download – “Sample Spreadsheet” and “2016 Sales Increase” from web page to use.

Resources

- 14 Basic Skills for Excel Users
<https://contexturesblog.com/archives/2009/07/13/14-basic-skills-for-excel-users/>
- Formula Quick List (handout)
- Chandoo.org - great Excel resources!

Basic Formula Entry (Use Sample Grades Chart)

- Autosum (video link) (this video encompasses all the other bullets in this section)
- Autoaverage
- Count
- Maximum
- Minimum



Using Data to Create Charts (Use Sample Grades Chart)

- Creating a Simple Chart – (video link)
- Changing the Look and Feel of the Chart – (video link)

Modifying Charts

- Learning about Chart Layouts (**Design Tab**) Quick **Layout**
- Changing the Data Orientation with **Switch Row/Column** (**Design Tab**)
- Moving a chart to a new sheet for printing (video link)
Design Tab, Move Chart
- Manually Changing Chart Details **Chart Tools Format or Design tab**
- Make a chart, and modify it
- Making a template for later use (video link) Right click on the chart and choose **Save as Template**

Linking Worksheets

Setting a link from one sheet to the other (video link)

1. Setting a Link to another Worksheet

*a. On **Sample Grades Chart**, round averages first*

a. On the red **AVERAGES** tab, put = into the 1st nine weeks cell, then go back to the **Sample Grades Chart** and click on the number of the average of the 1st nine weeks. Then **ENTER!!!** Your average will be on the red **AVERAGES** tab. Do the same for all four.

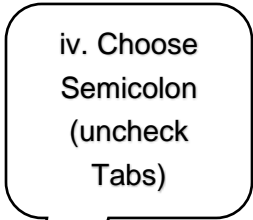
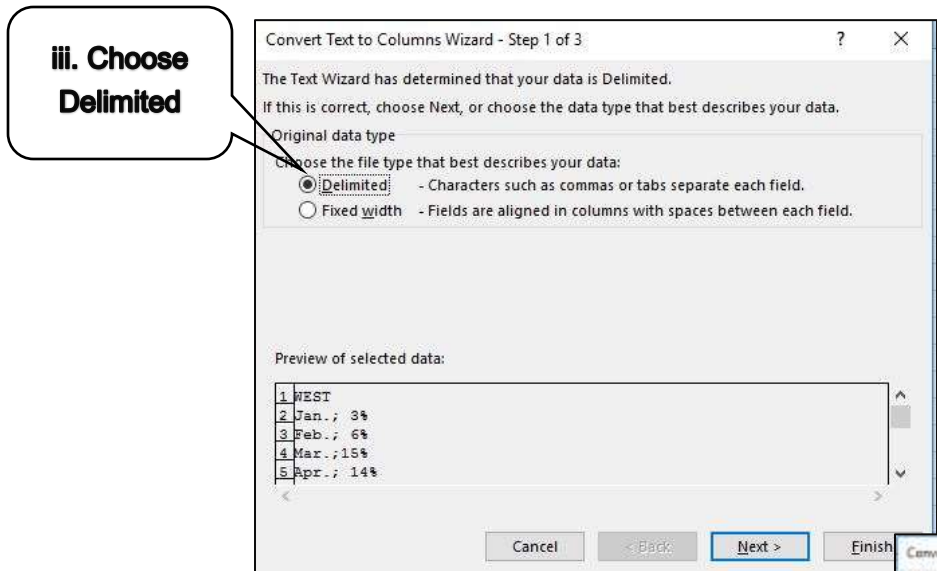
- b. Change some of the grade so that one or two of the averages change a great deal. Check your red tab **AVERAGES** tab and see that those averages have changed as well.
- c. Setting link from another workbook is done the same way.

Conditional Formatting

- Using and Applying Rules ([video Link](#)) (**Home** Tab) this video covers all the topics under conditional formatting
- Use **sample grades chart**
- Using Data Bars
- Icon Sets
- Managing Rules
- Making a New Rule

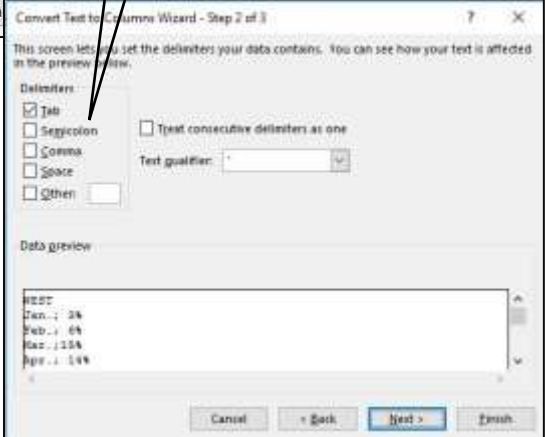
Text to Columns

1. Click the **Text to columns** tab and if your names are not in two separate columns, we can do that later.
2. Go to the Word document that we saved (“Sales Increase by Region”) and copy the list of Months with % of increase. Paste it into the sheet with the **Text to Columns** tab in column F.
 - a) Highlight the data you want to separate.
 - b) Go to the **Data** Tab and click on **Text to Columns**



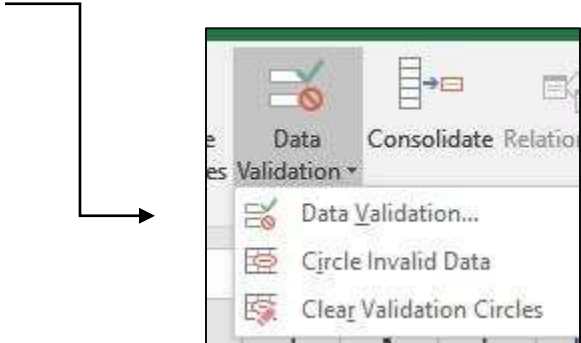
v. Click Finish, and

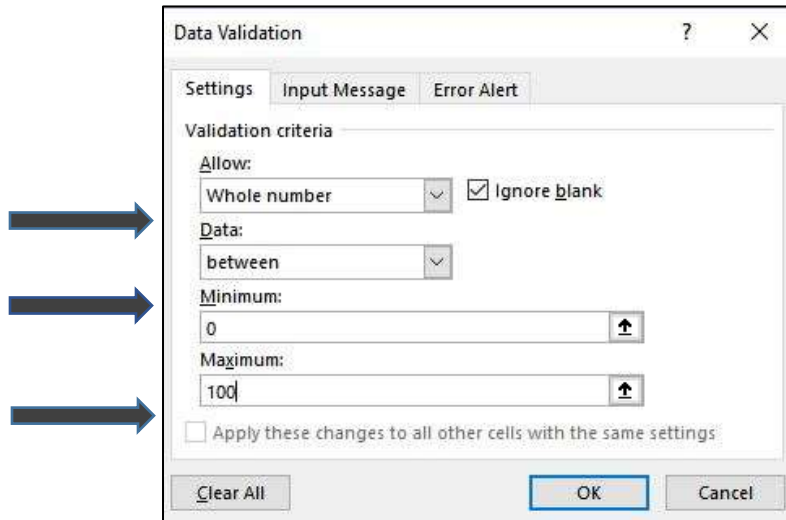
your % are in a separate column from your months.



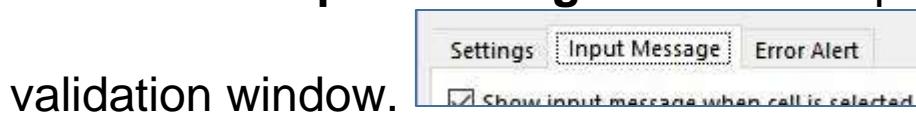
Data Validation - this is a means to be sure that data in a certain range can be entered. Data validation ([Video link](#))

- a. Use the list of grades from your sample grades chart
- b. Type ***Fifth Nine Weeks*** in cell G1
- c. Highlight the column from G2-G19
- d. In the **DATA** tab, click on **Data Validation**
- e. Choose Whole Number-between-0-100





f. Click on the **Input Message** tab at the top of the data

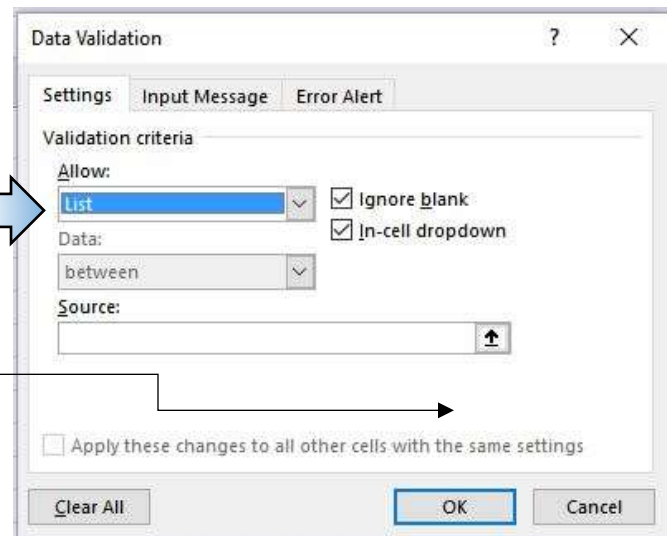


validation window.

- a. Add a message someone would see when they first click into the cell (for Example: Instructions: This number must be between 0 and 100. If a student has earned more than a 100, this must be indicated in another column.)
- b. Click on the **Error Alert** tab
- c. Add a message that someone would see if they input the incorrect number. (For Example: Invalid Number: This number must be between 0 and 100) Click on OK.
- d. Now, as you click on each cell, you should see the **Input Message** box pop up, and if you enter in an incorrect number, the error message will not let you go further until you have done something with the error.

Drop Down Boxes [\(Video link\)](#)

- a. Click on the **Drop-Down Boxes** tab at the bottom of the sample spreadsheet
- b. Highlight cells C2-C11 to tell the computer what cells you are using (or an entire row IF there is no heading).
- c. Choose **Data Validation** from the **Data** ribbon.
- d. In the allow area, choose list.



- e. Then click the **Source** “up arrow”
- f. Go to the **to copy for dropdowns** tab and highlight the names of schools. Enter then OK.
- g. Your drop-down boxes will now be there ready to use!

Monitoring Cells with the Watch Window (Formula Bar)

How could you use this?

Count Functions

- COUNT Functions – COUNTA – COUNTBLANK
[\(Video link\)](#)
- COUNTIF [\(Video link\)](#)
- IF & And Function[\(Video link\)](#)

COUNTA – counts the cells that include data

- Click on the **count** tab at the bottom of the spreadsheet
- Click in cell C9 and type =. Begin typing COUNT and you will see some count functions appear. Choose (or type) COUNTA. This will count the number of cells in a range that are NOT empty.
- Open parentheses, then highlight the cells you want to count (C1-C8). Press **ENTER**.
- Rt click – choose Clear Contents

COUNTBLANK -

- Clear cell C9 and type the =
- Begin typing COUNT and either choose COUNTBLANK or type the word.
- Open parentheses and then highlight the cells you want to **count (C1-C8) then press ENTER.**
- *note* even if there is an “invisible” character in the cell**, such as a space or even a formula that has been saved for that cell, it will count it as NOT blank.

e. Rt click – choose Clear Contents

COUNTIF – data that meets a single criterion

=Countif(range,criteria)

- a. Go to the **Schedule** tab at the bottom of the spreadsheet. We want to find out how many games are on each of these days.
- b. Type the word Friday in cell H2
- c. Use your auto-fill to fill in three more days (Saturday, Sunday, Monday)
- d. In cell I1 type How Many?
- e. In cell I2 type the = then type in **COUNTIF**
- f. Type in the range of cells you want to count. In this case it will be **(C2:C99**
- g. Put a comma after the C99 and then your quotation marks. **Quotation marks will designate what IF the data shows a single criterion, in this case, Friday.** Type “Friday”. Close your quotations and then close the parentheses.
- h. Push **ENTER**. Do this with each day, changing the day and the first cell.

IF & AND Function

If function- =IF(logical test,"value if true","value if false")
AND function - =AND(logical test, "value if true" "value if false", "logical test")

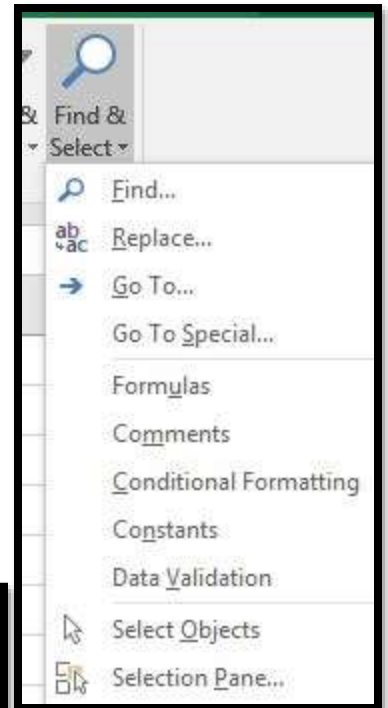
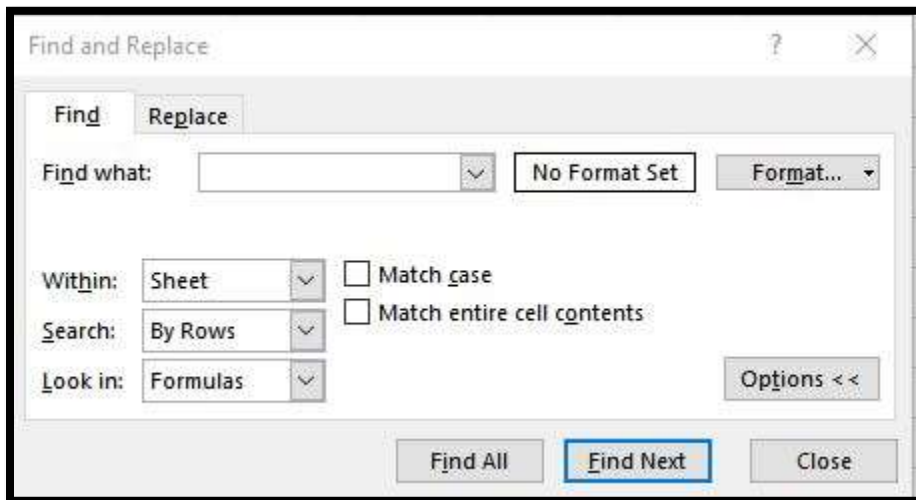
- a. Click on the **IF function** tab at the bottom of the spreadsheet.
- b. Obviously, we can answer all three questions just by looking at a short list. But what if you had thousands of customers and needed to make a quick check to see if someone had maybe, paid their bill last month? This is where you need the **IF** or the **AND** function.
- c. (instead of autofill!) Click on cell C2. Type the = and then the word **IF**. Open Parenthesis. The logical test is the cell number, type **(A2**. You are trying to see if the cell is equal

to the color red, so type = and the word red in quotations, **"red"**.

- d. You then need to tell the computer what to say if it is red or if it is NOT red. In this case we will use yes and no. type a comma after red, then in quotes **"yes"**, **"no"**. Close parentheses and click **ENTER**.
- e. Do the same formula for the rest of the results in column C.
- f. For Column D it will look a bit the same, but instead of the = sign after your cell ID you will put the greater than sign because we want to find out if what is in those cells is greater than 30. The formula will begin like this:
=IF(B2>30 *The rest of the formula should look the same as the first result formula:" yes", "no")*
- g. In column E, we will be using the AND formula. We want to **find out if the row has BOTH the word red AND is greater than 30**. So, we will combine the first two IF formulas. Type your = sign then the word **AND**. Open parentheses. The first cell is in cell A3, we want to know if it has the word red. So, **A2="red"**, put your comma to separate your actions, and type the second action, which asks the question is B2 greater than 30? Hence, we type **B2>30)**
- h. Continue typing the formulas to find the rest of the results.

Find and Replace - Search

- Go to the **Find & Replace** tab in the workbook.
- Click on the **Home** ribbon and then select the **Find and Select** icon.
- You can use this if you want to find a specific word or phrase within a large spreadsheet, or if you need to replace a word or words with something else.
- Click on the word **Find**. You can get to the replace box from the find, or you can click on the **Replace** to begin with if you know that you will need to replace something.



Type **Lee in the Find what box*

Merging Data from Multiple Columns into One or, **CONCATENATING**

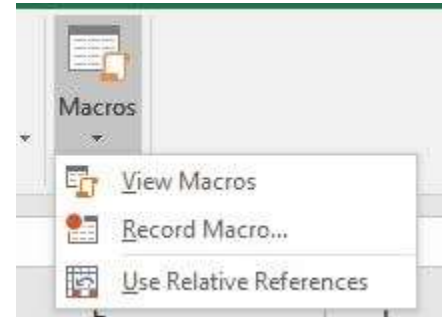
- a. Open the tab called **Modifying Columns, Rows & Cells** and modify the cells so that we can read everything (sizing of columns)
- b. We will combine the first and last names of a person with their position. In cell **J3** type your = sign then the word **CONCATENATE**. Then open Parentheses.
- c. Click on cell **A3** for the computer to add that cell or type it in yourself. Then add a comma.
- d. In order to place a space between the first and last names (or any two words) we have to let the computer know that we need a space. Since it isn't a number of a cell or a numeral, we need to put it in quotes. So type " " quote, space, quote.
- e. Add a comma and click on the next cell which would be **B3** for the last name. Repeat your comma and your use of adding a space," "
- f. Use one more comma to separate a different action, and add the position played by that person, which is in cell **E3** and close your parentheses.
- g. Your formula should look like this:
=CONCATENATE(A3," ",B3," ",E3)

Macros are small programs that record your keystrokes as you perform a task and then save the actions that you perform as a visual basic module, which is just another small program. So that when you repeat the macro later it will perform your keystrokes and thus repeat your actions. Great for automating repetitive tasks.

- a. Open the *Modifying Columns, Rows & Cells* tab from your workbook.

- b. Click on the View Tab and then the Macros icon.

SO BEFORE YOU DO THAT... click on **Record Macro**. Then call it **ADDING_COMPANY_NAME**. ****with no spaces****



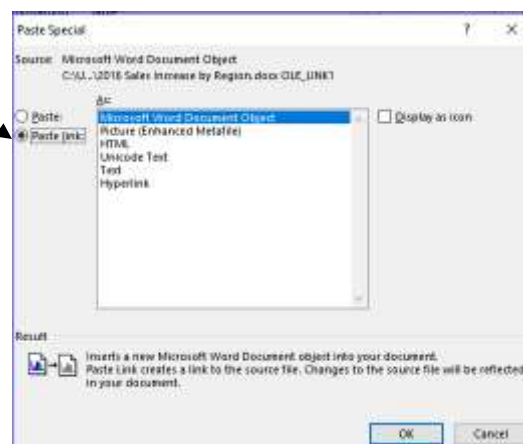
- c. We will add a row above row 1, merge cells A-D1, Type in **USAA Ball Team**, Bold and Center the title.
- d. Then click in a blank cell.
- e. Once you are done, click back on View ribbon Macros and Stop Recording.
- f. Open any other sheet and click on view Macros and choose the one you recorded... and watch!

Sharing Data with WORD or PPT

- Static vs. Linked ([video link](#))
- Importing text from WORD into Excel (accepts only txt ****MOST OPTIONS**** or csv files) Copy the data you want to be Linked, **Paste special**, paste link, formatted text RTF
- Open the saved word document and copy the chart from the bottom of the page to be pasted in to Excel. Add a new sheet, Call it **2016 Sales**, click on A1, go to the **Home** ribbon and chose **Paste special** in the **Clipboard** section.

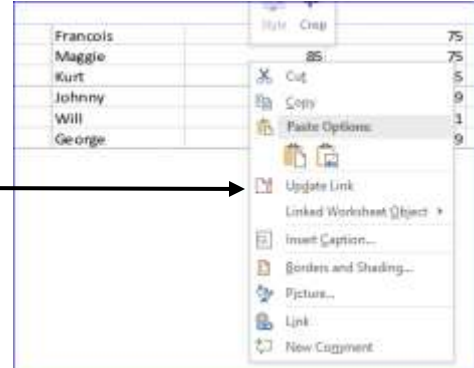
Choose **Paste Link** then OK

- Now go to your sample grades chart. Copy the first four students and their grades. Open a new word document, be sure to see your blinking cursor on the



page then go to the **Home** ribbon and choose **Paste special** again. **Paste link** once again.

You may need to right click on your word document and choose to **Update Link



Using Basic Formulas and Functions [\(video link\)](#)

= SUM (G2:G41)

Equal Function Argument colon
sign Name

=SUM(G21:G26,G40:G41)

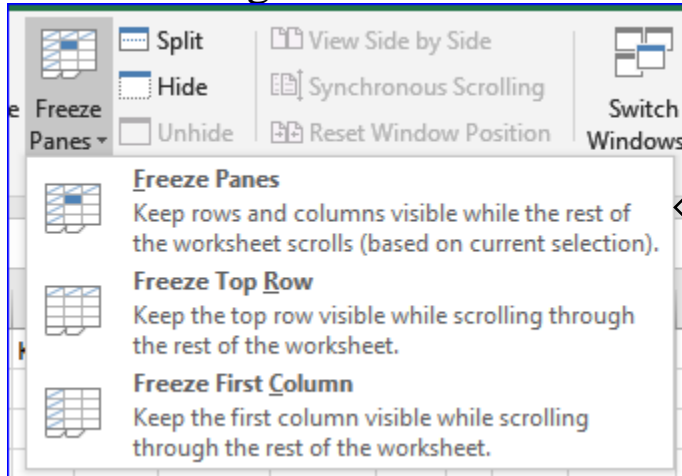
- [Basic Functions Cheat Sheet \(Link to PDF\)](#)
- [Another list \(link to web site\)](#)
- [A Very Extensive List \(link to web site\)](#)

Miscellaneous Fun Stuff

- Range Names
 - [Creating Range Names and Moving to a Named Range \(Video link\)](#)
 - Name Manager
- [Cell Comments \(Video link\)](#)
 - Adding Comments to a Cell (**Review** tab or right click)

- Reading Comments
- Hiding and Showing Comments
- Editing and Formatting Comments
- Deleting Comments

● **Freezing Panes View Tab**



Freezes all Columns to the left of a column selected or all rows above the row selected.

Some Time to Work

- Make and Modify a Chart
- Get the average of a column of data (either by building your own formula or by AutoSum)
- Set a link from one sheet to another
- Practice conditional formatting
- Review and ask questions