**Excel Data Analysis Training**

Create useful information from raw data using Excel Data Analysis functions

**Data Setup**
- Column headers must in first row above data
- Records must be in rows
- No blanks in column headers
- No blanks columns in or rows in data set
- No blank cells
- No data next to the data set. The cells surrounding the data set should all be empty.

**Sort**
Rearrange data based on your criteria

1. Sort with 1 criteria
   a. Data tab > Sort

2. Sort with 2 or more criteria
   a. Data tab > Sort
   b. The final criteria sort you choose to sort by is called the “Major Sort” which should be at the top
   c. Example: I want to sort by Grades within Majors
      i. Sort grades from highest to lowest
      ii. Add level: Sort Majors

3. Sort by color
   a. Sort Dialog Box
   b. Sort by red and yellow
Filtering or temporarily extracting only the data you are concerned with

1. Filter with 1 criteria
   a. Click on a cell within the data set > Data tab > Filter
   b. Select the drop-down arrow from the column you want to filter
   c. Check the box for filters

2. To extract that filtered data onto a new sheet
   i. Highlight the data > Copy > Paste into new sheet
   ii. Right click on the pasted data and select “Keep Source Column Widths”

3. To clear filters on original data
   a. Click Data tab > Clear

4. Filter with 2 or more criteria
   a. Same as Filter with 1 criteria, just check the additional boxes

5. Filter by color
   a. Select the drop-down arrow from the column you want to filter
   b. Select Filter by Color > Select a color

6. Filter number, dates or text
   a. Filter by numbers
      i. Select drop-down arrow from the column you want to filter
      ii. Select Number Filters >
         1. Greater than or equal to > 100
         2. Top 10
   b. Filter by dates
      i. Select drop-down arrow from the column you want to filter
      ii. Select Date Filters > This Week
   c. Filter by text
      i. Select drop-down arrow from the column you want to filter
      ii. Select Text filter
Pivot Table

A pivot table allows you to extract the significance from a large, detailed data set. Easily make calculations with 1 or more criteria.

1. Select a data cell > Insert Tab > Pivot Table > (New Sheet) Okay
2. Pivot Table Fields
   a. Drag the fields you want a report onto the desired location in Field List
      i. Filters
      ii. Columns
      iii. Rows
      iv. Values
3. Right click on the values and select a calculation (e.g., summarize by average)
4. Format: Design Tab > Report Layout > Tabular

Charts

Create a chart from a Pivot Table. Any changes made on a pivot table will reflect on the Column Chart

1. Select a data cell within the pivot table
2. Insert Tab > Column Chart
3. Click on field buttons on the chart and select Hide Value Field buttons and Hide Axis Field Buttons
4. Add X- axis title
   a. Design > Add Chart Element > Axis Title > Primary Horizontal
   b. Click on the new axis title text box and type in a title
5. Add Y- axis title
   a. Design > Add Chart Element > Axis Title > Primary Vertical
   b. Click on the new axis title text box and type in a title
6. Add Data Labels
   a. Design > Add Chart Element > Data Labels > Outside End