Excel Basics

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Important Vocabulary

- **Workbook**: The overall Excel file that you are creating.
- **Sheet**: Excel workbooks can consist of multiple sheets (located at the bottom of the program) that you can rename.
- **Row**: numerical (horizontal).
- **Column**: alphabetical (vertical).
- **Cell**: each box is called a cell and has an ID based on its row and column placement (A1, A2, A3, etc).
- **Function**: used to calculate and analyze data using mean, median, standard deviation, addition, subtraction, and other forms of arithmetic or data manipulation.
- **Charts**: used to visualize data with bar charts, scatter plots, and other formats.

Useful Operations in Excel

Basic Functions:

- In an empty cell, begin by typing in the equal sign (**=**). This is how Excel knows you are writing a function.
- Write the function name. As an example: to add use =SUM(_____). Inside the parentheses, specify the range of cells you want the function to operate on.
- Either select or manually input the data inside the function's parentheses. Your function will now read something like: =SUM(B1:B12).

Sorting Data:

- Select your dataset.
- Select "Sort" under the "Data" tab. Once you click, a pop-up window will appear.
- Choose which column you would like to sort values by, and how you would like to order the values. The entire dataset will be sorted accordingly.
- If your list has headers (column titles) make sure to tick the right-upper box. Otherwise, Excel will automatically sort the column labels or titles as well. You can also go to "View" and then "freeze" specific rows or columns.

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Data Validation:

- Highlight the cells to which you want to apply the data validation.
- Select “Data Validation” under the “Data” tab and change “Allow” from “Any value” to “List” in the drop-down menu.
- In the box, type the responses you want to allow in your selected cells. The values must be separated by commas.
- When applying data validation to filled-in cells, Excel will automatically overwrite the cell content. You can avoid this by creating new columns to apply data validation to.

Conditional Formatting:

- Highlight the cells to which you want to apply the conditional formatting.
- Select “Conditional Formatting” under the “Home” tab and choose from a range of options.
- The formatting will change when you edit, add, or delete values.

Tables:

- Select all the cells that you want included in your table. Under the “Insert” tab, select “Table.”
- You can customize the appearance of your table under the “Table” tab.
- You can still modify your data once it is in a table; although tables make your data look more presentable, they are not a “finished” form.

Charts:

- Select the columns and variables you would like to include in your Chart.
- Go to “Insert” and then “Charts”. Choose the chart type you want.

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