

## WTI—ADVANCED EXCEL

### Getting Started

Open a new Excel document.

In cell A1 type Name.

In cell B1 type Score.

In cells A2-A6, fill in the names of 5 people.

In cells B2-B6, type in a one-number score between 1 and 5.

Example:

Ginny 3

Joyce 5

Dan 4

Jen 4

Kristin 5

Now you're ready for some formulas!

### Using formulas in Excel

*Excel is a smart formula program meaning that it will tell you if there are errors in your list which prevent a formula from being used. It will also try to select what it thinks are the data you want to include in your formula. Check to make sure that Excel made the right choice before completing your formula.*

**ADD**—Position your cursor in the empty cell just below your last number entry. Click on the Sigma button in the top toolbar and you'll see a drop-down menu. Select "Sum." A box will pop up that automatically selects the numbers you have typed in. Hit "Return" and your sum will appear in the cell below your last number entry.

**AVERAGE**—Position your cursor in the cell beneath your last number entry. Click on the Sigma button in the top toolbar and choose "AVERAGE" from the drop-down menu. A box will pop up that automatically selects the numbers you have in your list. Hit "Return" and your average will appear (sometimes with many decimal points) in the cell below your last number entry.

**MAX/MIN**—Follow the same steps as above to use the MAX and MIN formulas. These allow you to see the largest and smallest values in a list. This is helpful if you have a particularly large list of numbers and you need to know the range.

## **Formatting Numbers**

To format the way numbers are shown within your document, place your cursor on the cell (or cells) you'd like to format. Then choose Format-Cells. Within the pop-up menu, choose the "Number" tab. Then, scroll through the options on the left menu bar.

- "Number" will allow you to determine the number of decimal places to have shown.
- "Date" will allow you to select how you would like to have a date shown when you type it in.
- "Percentage" allows you to format how you would like percentages to be displayed.

## **Manipulating Rows and Columns**

*Often users may need to add a row or column to a spreadsheet that has already been created. To do this, follow the directions below.*

**Inserting A Column:** Highlight the column (by clicking on the letter at the top) that you would like to be TO THE RIGHT of the column you want to insert. Then choose Insert-Column. The column will appear.

**Inserting A Row:** Highlight the row (by clicking on the number at the left) that you want to be BENEATH the row you are inserting. Then choose Insert-Rows. The row will appear.

**Inserting Copied Rows or Columns:** If you want to insert a duplicate row or column, first highlight the entire row or column (by clicking on the letter or number) and then choose Edit-Copy. Place your cursor wherever you'd like to paste the row or column (be sure to highlight the entire row or column space...see above). Then choose Insert-Copied Cells.

**Sorting By Rows or Columns:** If you'd like to sort your data, highlight all of the information you'd like to sort together. \*Important note: Do not just highlight one row or column as Excel will sort only that information and all other columns will stay the same.\* After the data is selected, choose Data-Sort and choose how you would like to sort your information (by which column, ascending, descending, etc.). You can also sort by up to three variables/column headings (e.g., by last name, score, and subject).

## **Using Multiple Worksheets**

*If there are a number of pages you'd like to include in one document, it's sometimes easier to use the worksheet option at the bottom of Excel documents as opposed to copying and trying to print within one worksheet.*

- To name a worksheet, double click on the "Sheet 1" tab at the bottom of the page.
- You can click between multiple worksheets by using the arrows at the bottom of the page on the left.
- Use the Edit menu to add, delete, or copy worksheets.

### **Using Lists**

*Excel has a function that allows you to create a list. This is helpful for any large amounts of data, because the list sorting function is much more user friendly than the regular sorting option. Also, the list allows you to name and insert columns and rows with easy commands.*

- Place your cursor in the cell where you would like your list to start.
- Then choose Insert-List and the List Wizard box will pop up.
- To create a new list, choose the button “None (Start With New List).”
- Then Click Next.
- Fill in your desired Column Name and Value (e.g., Last Name (Value = Text))
- Then Click Add.
- Continue this process until you have all of the columns labeled that you need for your list.
- Then click Next.
- Name your list and then click Finish.
- The list will appear in your document in the cell you selected.
- Then you can add in the data for your list to the appropriate columns.
- Use the List Wizard to format the cells the way you would like and to insert rows and columns.
- If you lose the List Wizard Box, you can retrieve it by choosing View-Toolbars-List.

### **Using Charts**

*Excel has a function that allows users to create and insert charts that display the data in a list. This is a helpful function in that it allows users to visually assess data in a variety of ways.*

- Once you have compiled your list of data, highlight the cells and choose Insert-Chart.
- The Chart Wizard box will appear to walk you through the steps in choosing a chart.
- Choose the type of chart you want to use and click Next.
- Make sure that the data you want included is what is highlighted in the “Data Range” bar. Then click Next.
- Give your chart a title.
- The “Legend” tab allows you to determine if you’d like the legend to appear next to your chart.
- The “Data Labels” tab allows you to decide if you’d like the actual data to appear in your chart, and if so, how to format that data.
- Then click Next.
- Select whether you’d like the chart to appear in your current worksheet or in a different worksheet.
- Then click Finish.
- You can manipulate the size of the chart by dragging the corners.

## A Review on Formatting Cells

1) **Changing column width**—To change the width of the columns, highlight the columns you are working with by dragging your mouse over the letters. Then, when all columns are highlighted, Go to Format— choose Column-Width. Type 1.5 in for the column width.

2) **Changing row height**—To change the height of the rows, highlight the rows you are working with by dragging your mouse over the numbers. Then, when all rows are highlighted, Go to Format then choose Row-Height. Type .30 in for the row height.

3) **Changing font and font size** To change the font, highlight the cells you are working with by dragging your mouse over them. When all cells are highlighted, go to Format and choose Cells. When the box opens, click on Font from the choices. Select the appropriate font and font size from the menus.

4) **Centering text in cells**—To center text in a cell, highlight the cells you are working with by dragging your mouse over them. When the cells are highlighted, go to Format and choose Cells. When the box opens, click on Alignment from the choices. Select center from the “Horizontal” drop down menu. Then select center from the “Vertical” drop down menu.

5) **To wrap text in a cell**—Wrapping text allows you to continue typing in a cell without running into the next cell. As you type, the height of the row will auto-adjust to fit your text. To wrap text, highlight the cells you are working with by dragging your mouse over them. When the cells are highlighted, go to Format and choose Cells. When the box opens, click on Alignment from the choices. Click on the empty box next to the “wrap text” option.

6) **To merge cells**—Merging cells allows you to combine two cells together. To merge cells, highlight the specific cells you would like to combine. When the cells are highlighted, Go to Format and then choose Cells. When the box opens, click on Alignment from the choices. Click on the empty box next to the “merge cells” option.

7) **To change borders**—Changing the borders allows you to make lines appear between cells. To change borders, highlight the specific cells you would like to format. When the cells are highlighted, go to Format and choose Cells.. When the box opens, click on Borders from the choices. Click on the appropriate line placement depending on where you want the line to appear around the cell (a line under the cell, on top of the cell, etc.) To create full lines around the cells, select the “outline” and “inside” options.

8) **To change the colors of cells**—To change the color of cells, highlight the specific cells you would like to format. When the cells are highlighted, go to Format and choose Cells. When the box opens, click on Patterns from the choices. Click on the appropriate color from the options.