Microsoft Excel

Getting Started
To start a new spreadsheet go to Applications > Microsoft Excel, then choose the type of Excel document you want to work with. (Figure 1)

Spreadsheets
Excel uses spreadsheets for containing information. A spreadsheet is the computer equivalent of a paper ledger sheet that consists of a grid made of columns and rows that intersect to form cells.

Columns;
Vertical spaces labeled with letters. See Figure 2 on the right.

Rows;
Horizontal spaces labeled with numbers. See Figure 3 below.

Cells;
Where rows and columns intersect, illustrated in the outlined box. See Figure 4 on the right.

Charts and Graphs
Excel also uses charts to show information. A chart is a graphic representation of your data that allows you to observe trends, make comparisons and discover patterns in data. To insert a chart, click the Insert Tab (Figure 5) and choose the chart you wish to use.

Step 1;
Chart Type allows you to choose a standard or custom chart. Click on the icon representing the chart you wish to use and then choose the Chart Sub-Type you would like.

Step 2;
Select Data allows you to type in a data range or series. (Figure 6) This option is located in the Chart Tools > Design tab that appears once a chart is inserted. Under Chart Data Range box, you can type the data range your using and select how the series is to be displayed. Under Series, you can add a series name and values, edit aseries, and remove a series.

Step 3;
Chart Layouts allow you to title the chart, category axes and value axes. Other Chart Options allow you to alter the axes, gridlines, legend, data labels and data table. (Figure 7)

Step 4;
Move Chart Location allows you to place the chart as a new sheet or as an object on a previously made sheet.
Formatting

Cells, rows and columns can be adjusted and formatted in the spreadsheet by using the enhancement bar. To format text within a spreadsheet, you must first select the cells you want to format. Then click on any of the changes you wish to make. In the Enhancements Bar you can change the Number, Alignment, Font, Font Color, Font Style, Spacing, and Cell Addition and Subtraction.

**Number:** Allows you to choose decimal places, currency symbols and negative numbers for currency or accounting.

**Alignment:** Allows you to choose certain text alignment, indentation, orientation and text control.

**Font:** Allows you choose a text font, style, size, underline, color and effects.

**Spacing:** Allows you to change how the spaces are placed between your words.

**Cell Addition and Subtraction:** Allows you to insert and delete cells.

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Basic Functions

**Functions** are prewritten formulas that take a value or values, perform an operation and return a resulting value to a cell. To use a function to calculate a formula, begin the formula with an equal sign. There are many different types of functions that make spreadsheet calculations quick and easy. Follow with the function name such as **SUM,** **AVERAGE,** **MAX / MIN,** **COUNT/COUNTA** or **IF.**

When creating a function you will need to go to the Formulas Tab and click the Insert Function button (Figure 8). A dialog box pops up and you can choose from the menu.

Or use the following steps:

1. Select the cell in which the result of the calculation will be displayed.
2. In the Formula Bar select the formula button and choose the formulas you will use.
3. Enter the cell references to be calculated in the function box above the chart.
   - Use a colon to select successive cells in a row or column.
4. Press **Enter**
5. The formula result will appear in the selected cell.

*A shortcut to the sum function is the sigma symbol and the drop-down arrow.*

The **SUM** function is a common function used to calculate values. The **SUM** function has a default decimal setting of zero which can be increased or decreased using the decrease/increase decimal buttons (Fig. 7e) on the toolbar.

The **AVERAGE** function produces the mean of selected cells, by adding all the values in each cell and then dividing them by the total number of values.

The **MAX** function returns the maximum number in a selected range of cells and the **MIN** function returns the minimum number in a selected range of cells. Blank entries and cells are not calculated in these functions.

The **COUNT** function counts the number of selected cells that contain numerical data. Blank cells and cells with text are not counted. The **COUNTA** function counts the number of selected cells that contain numerical data or text data. Blank cells are not counted, but text cells are counted.

The **IF** function performs conditional tests on cell values and formulas. Conditions are set and cell values are determined to be true or false according to the set conditions. Values returned may be either numerical or text, but if they are text, they must be in quotes.