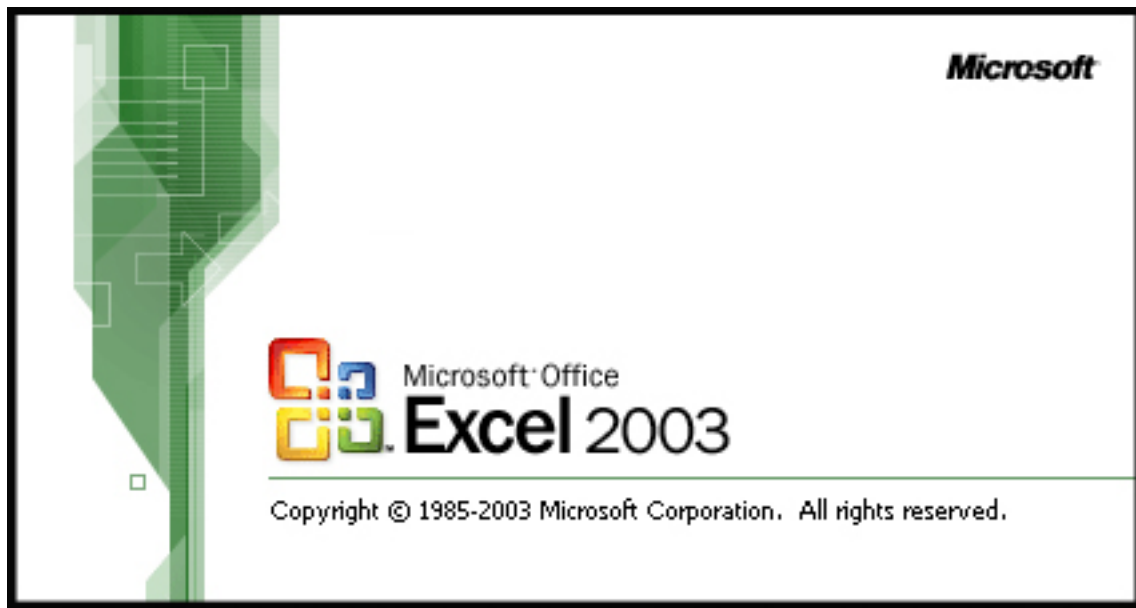


Microsoft Excel Tutorial



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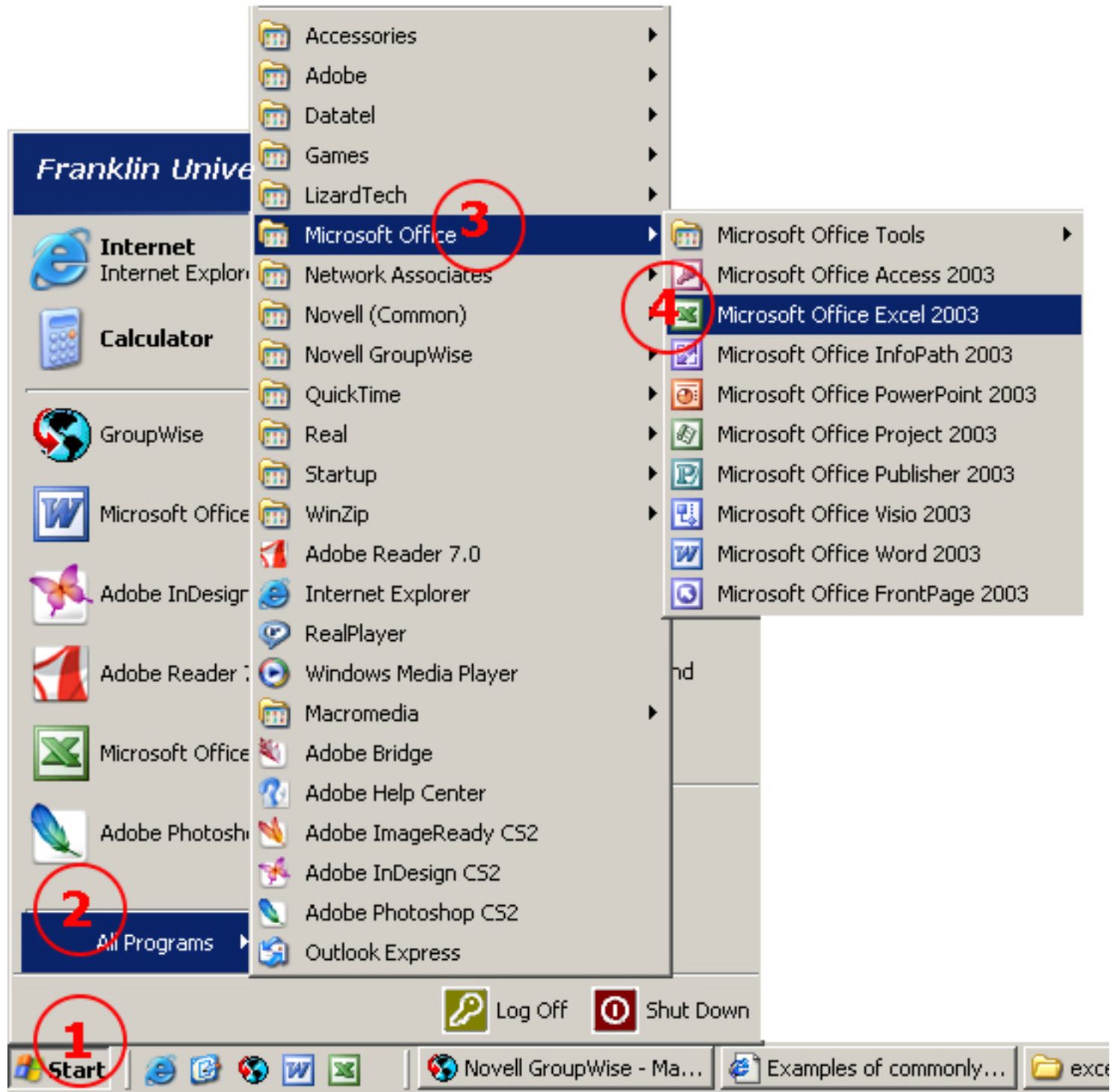
What are Spreadsheets

Spreadsheets are a group of cells, columns, and rows containing data. This software program enables you, the user, to organize, analyze, and communicate specific data using functions, formulas, and charts.

Starting an Excel Spreadsheet

To open Microsoft Excel:

Select Start → Programs → Microsoft Office → Microsoft Excel

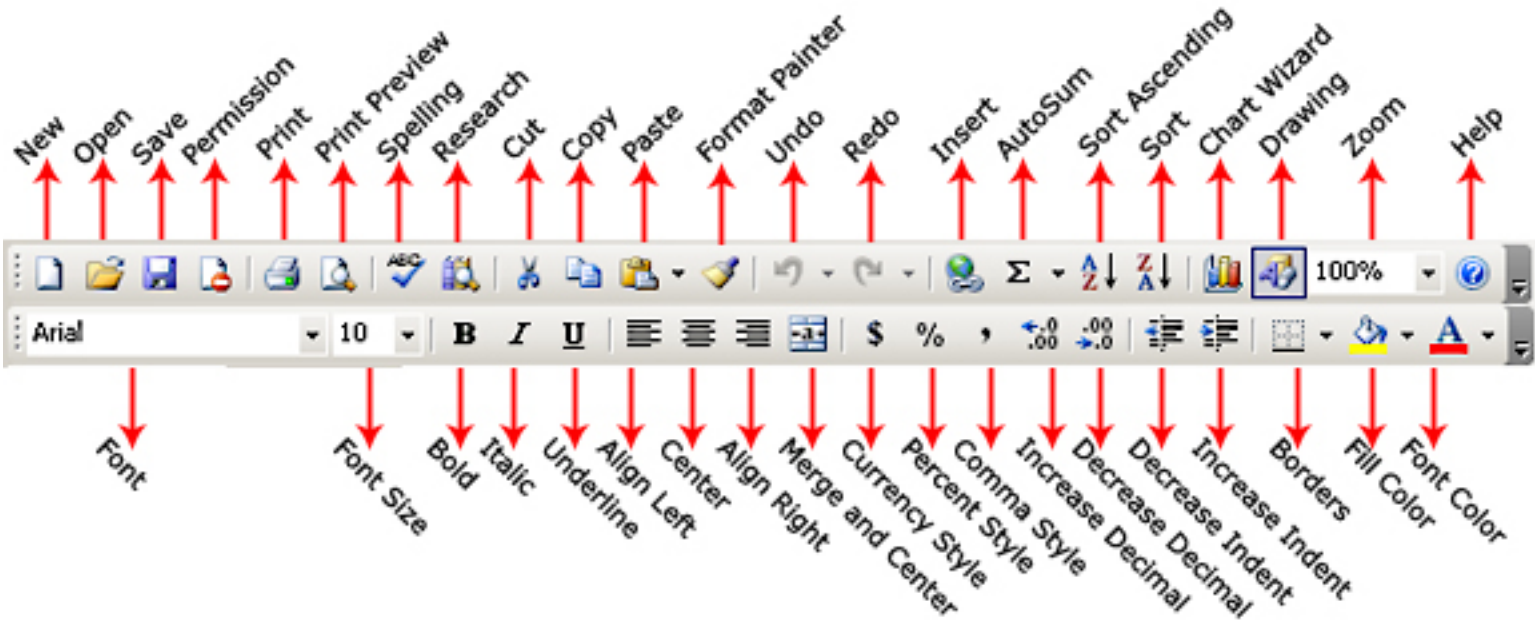


Saving Your Document

To save your Excel document, select **File** → **Save As**. Name your file and choose where you want to save it, i.e. your desktop, floppy disk, thumb drive, etc. The “Save As” key only needs to be selected once. After doing so, you will only need to select “Save”. Remember to do this frequently. To view a screen shot and more information on Saving, go to page 8.

Tool Bar

The Tool Bar is found at the top of your Excel database document. Your order of tools may vary due to what has been selected to be included on the tool bar itself. To change, add, or delete tools from your Tool Bar select **View** → **Tool Bars**.



Menu

You can preform the same tasks using the Menu as those listed on the Tool Bar. A screen shot of the Menu Bar is below.



The Parts of a Spreadsheet

Spreadsheets are a group of cells, columns, and rows containing data.

Row

A row is a set of horizontal cells. Notice that Rows are labeled with numbers. To change the height of a row, mouse over the row line and drag to your desired height.

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |

Column

A column is a set of vertical cells. Notice that Columns are labeled with letters. To change the width of a column, mouse over column line and drag to your desired width.

| | A | B | C | D |
|----|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |

Cells

A cell is the intersection of a column and row, one box. For example, the highlighted blue box is Cell B3.

| | A | B | C |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |

Working With Data

Text, numbers, dates and times can be added to a cell.

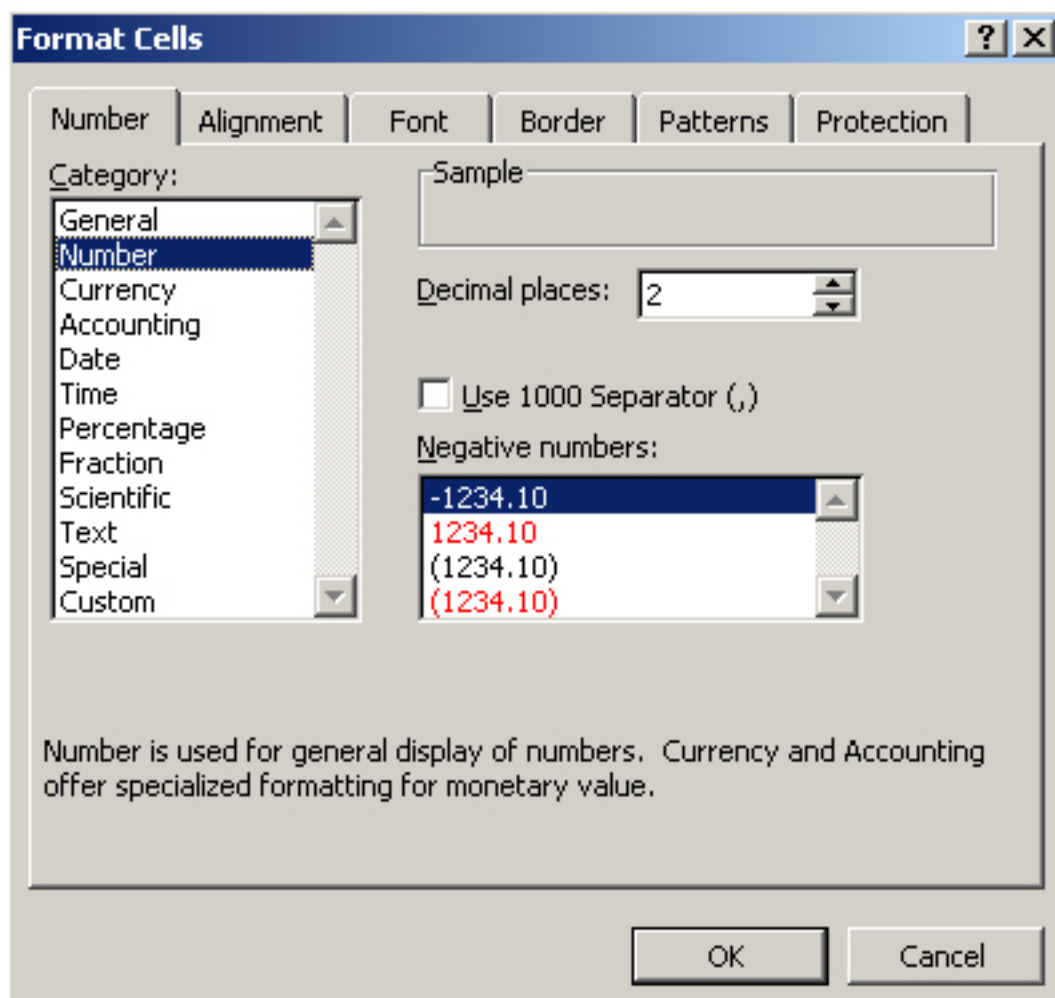
Text is any combination of numbers, spaces, and nonnumeric characters – for example, Excel treats the following entries as text: 10AA109, 127AXY, 12-976, 208 4675. All text is left-aligned in a cell.

A number can contain only the following characters: 0 1 2 3 4 5 6 7 8 9 + - () , / \$ % . E e. All numbers are right-aligned in a cell.

Excel ignores leading plus signs (+) and treats a single period as a decimal. All other combinations of numbers and nonnumeric characters are treated as text.

Excel treats dates and times as numbers. The way that a time or date is displayed on a worksheet depends on the number format applied to the cell. When you type a date or time that Excel recognizes the cell's format changes from the General number format to a built-in date or time format. By default, dates and times are right-aligned in a cell. If Excel cannot recognize the date or time format, the date or time is entered as text, which is left-aligned in the cell.

To change the number format select **Format** → **Cells** → **Number**. Select the format that will best suit your spreadsheet's needs.



Functions

Functions help organize and prioritize the data/numbers you have entered by using specific formulas. Functions allow you to compute data quickly and accurately. You will always need to begin formulas with an equal sign in order for a function to calculate. You can select the data cells prior to defining functions or you can physically type: **cell letter and number** → : → **cell letter and number**. Examples of formulas for each function are on Page 6.

Common Functions

SUM

Finds the total by adding
An example of a SUM function in a formula is to your right.

AVERAGE

Finds the mean by comparing cells

MAX

Finds the largest value

MIN

Finds the smallest value

IF

Determines if conditions are true or false

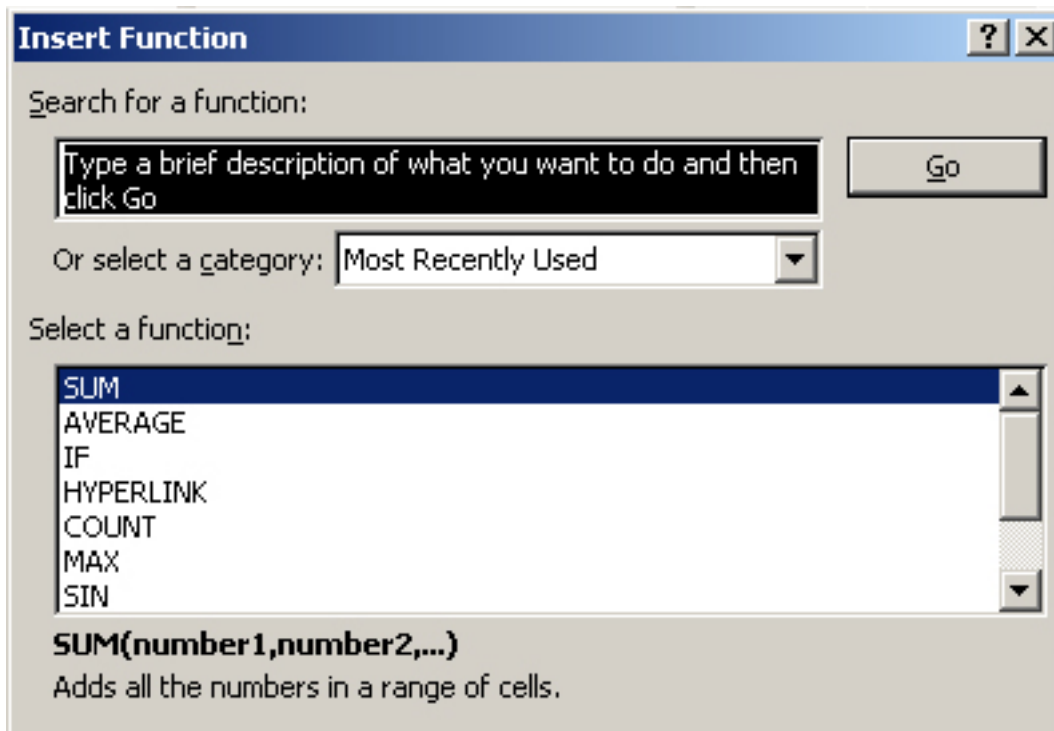
Microsoft Excel - excel_basics

File Edit View Insert Format Tools Go Help

SUM =SUM(B2:B12)

| | B | C | |
|----|-----------------------------|------------------------------|---------------------------|
| 1 | Freshman Year, Credit Hours | Sophomore Year, Credit Hours | Junior Year, Credit Hours |
| 2 | 4 | 3 | 4 |
| 3 | 3 | 4 | 4 |
| 4 | 3 | 1 | 4 |
| 5 | 1 | 5 | 3 |
| 6 | 2 | 4 | 1 |
| 7 | 5 | 1 | 1 |
| 8 | 4 | 1 | 3 |
| 9 | 4 | 3 | 4 |
| 10 | 3 | 4 | 5 |
| 11 | | 3 | 1 |
| 12 | | 4 | |
| 13 | Sum: | | |
| 14 | 29 | =SUM(B2:B12) | 30 |
| 15 | Average: | | |
| 16 | 3.222222 | | 3 |
| 17 | Min: | | |
| 18 | | 1 | 1 |
| 19 | Max: | | |
| 20 | 5 | 5 | 5 |

***NOTE:** You can also select **Insert** → **Function** which is the screen shot below.



Example Formulas for Each Function

- =SUM(cell:cell)
 - =AVERAGE(cell:cell)
 - =MAX(cell:cell)
 - =MIN(cell:cell)
 - IF
- example: =SUM(A2:A10)

example: =AVERAGE(A2:A10)

example: =MAX(B2:B12)

example: =MIN(B2:B11)

example: =IF(A8>10,"YES","NO")f

AVERAGE

| | | | |
|-----|-----------------------------|------------------------------|---------------------------|
| A16 | =AVERAGE(A2:A10) | | |
| | A | B | C |
| 1 | Freshman Year, Credit Hours | Sophomore Year, Credit Hours | Junior Year, Credit Hours |
| 2 | 4 | 3 | 4 |
| 3 | 3 | 4 | 4 |
| 4 | 3 | 1 | 4 |
| 5 | 1 | 5 | 3 |
| 6 | 2 | 4 | 1 |
| 7 | 5 | 1 | 1 |
| 8 | 4 | 1 | 3 |
| 9 | 4 | 3 | 4 |
| 10 | 3 | 4 | 5 |
| 11 | | 3 | 1 |
| 12 | | 4 | |
| 13 | Sum: | | |
| 14 | 29 | 33 | 30 |
| 15 | Average: | | |
| 16 | 3.222222222 | 3 | 3 |
| 17 | Min: | | |
| 18 | 1 | 1 | 1 |
| 19 | Max: | | |
| 20 | 5 | 5 | 5 |

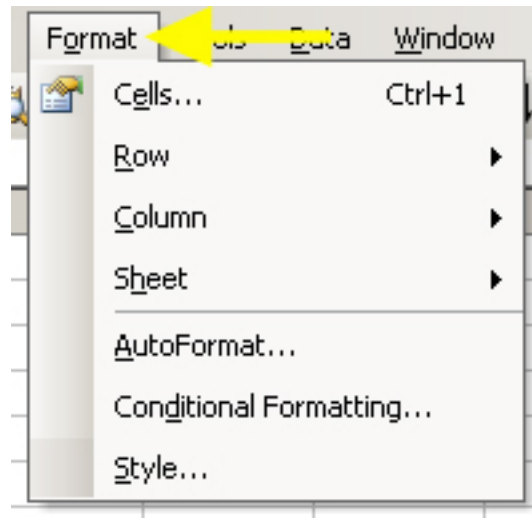
IF

| | | | |
|----|-----------------------|----------------------|---|
| B8 | =IF(A8>10,"YES","NO") | | |
| | A | B | C |
| 1 | Credit Hours | Credit Hours Over 10 | |
| 2 | 8 | NO | |
| 3 | 10 | NO | |
| 4 | 12 | YES | |
| 5 | 16 | YES | |
| 6 | 21 | YES | |
| 7 | 9 | NO | |
| 8 | 6 | NO | |
| 9 | 15 | YES | |

Formatting

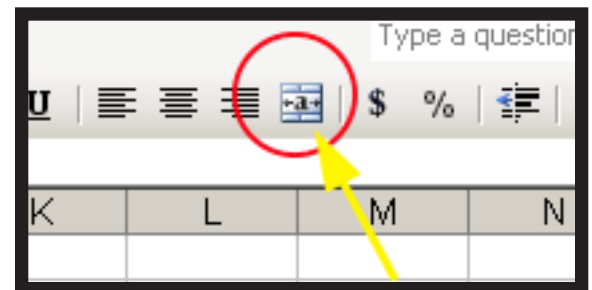
Text

To format text, i.e. color, font style, size, etc. use the **Tool Bar** or **Menu**.

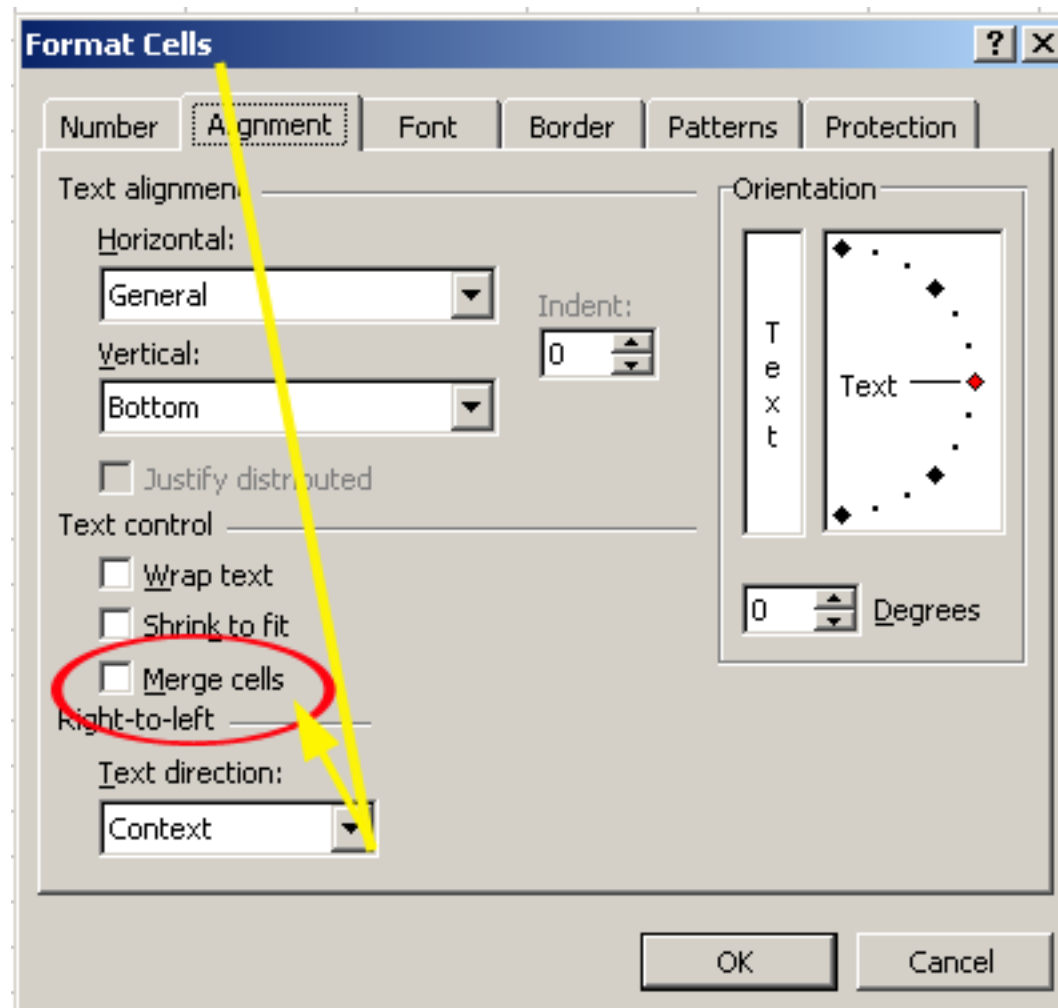


Aligning

To align your text or merge cells you will use the **Tool Bar** or **Menu**.

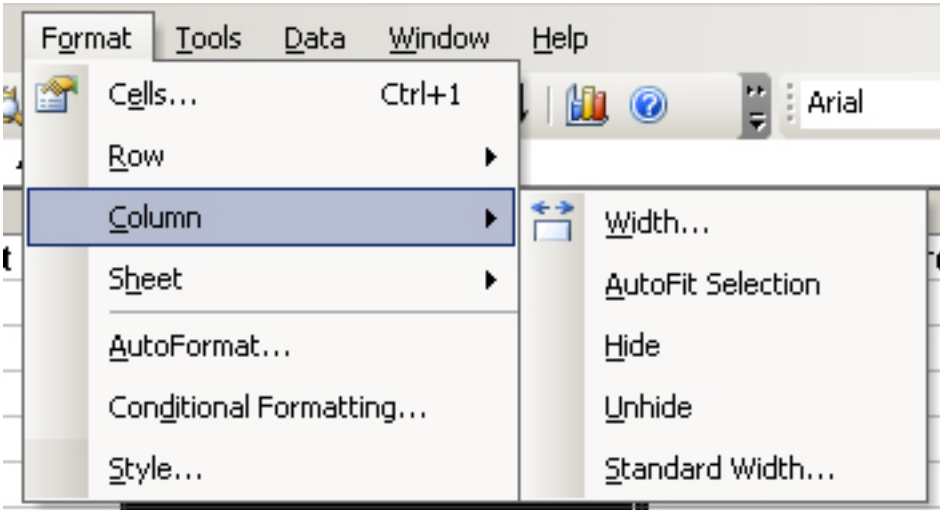


Merge Cells



Columns/Rows

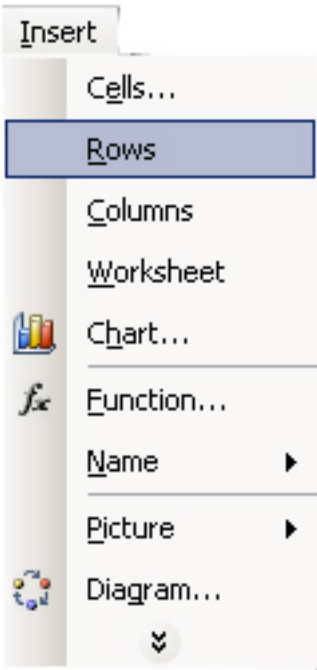
To format text, i.e. width, height, etc. use the Tool Bar or Menu



Example of formatting:

| | A | B | C |
|----|-----------------------------|------------------------------|---------------------------|
| 1 | Freshman Year, Credit Hours | Sophomore Year, Credit Hours | Junior Year, Credit Hours |
| 2 | 4 | 3 | 4 |
| 3 | 3 | 4 | 4 |
| 4 | 3 | 1 | 4 |
| 5 | 1 | 5 | 3 |
| 6 | 2 | 4 | 1 |
| 7 | 5 | 1 | 1 |
| 8 | 4 | 1 | 3 |
| 9 | 4 | 3 | 4 |
| 10 | 3 | 4 | 5 |
| 11 | | 3 | 1 |
| 12 | | 4 | |
| 13 | Sum: | | |
| 14 | 29 | 33 | 30 |
| 15 | Average: | | |
| 16 | 3.222222222 | 3 | 3 |
| 17 | Min: | | |
| 18 | 1 | 1 | 1 |
| 19 | Max: | | |
| 20 | 5 | 5 | 5 |

Inserting and Deleting Cells, Columns, and Rows

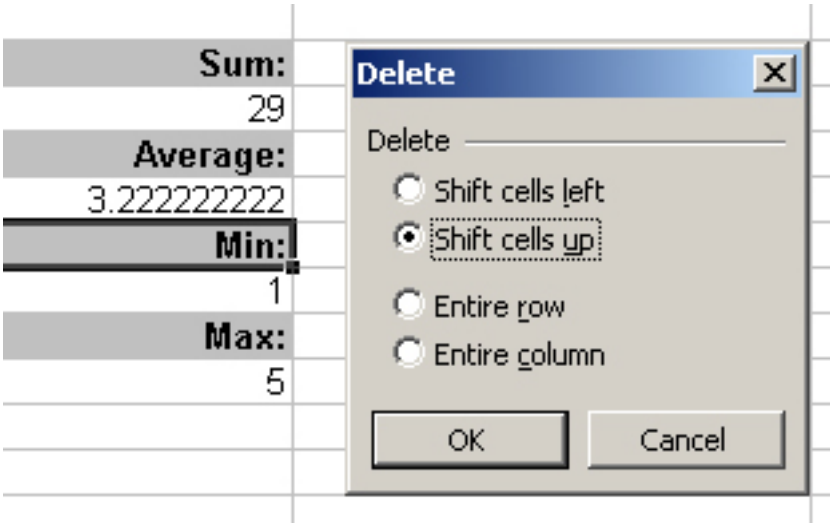


Inserting

Select **Insert** → **Cells.../Rows/Columns**

Deleting

Right Click on the Cell, Column, or Row you wish to delete. Select **Delete**. The menu below will appear. Choose the item you want to delete.

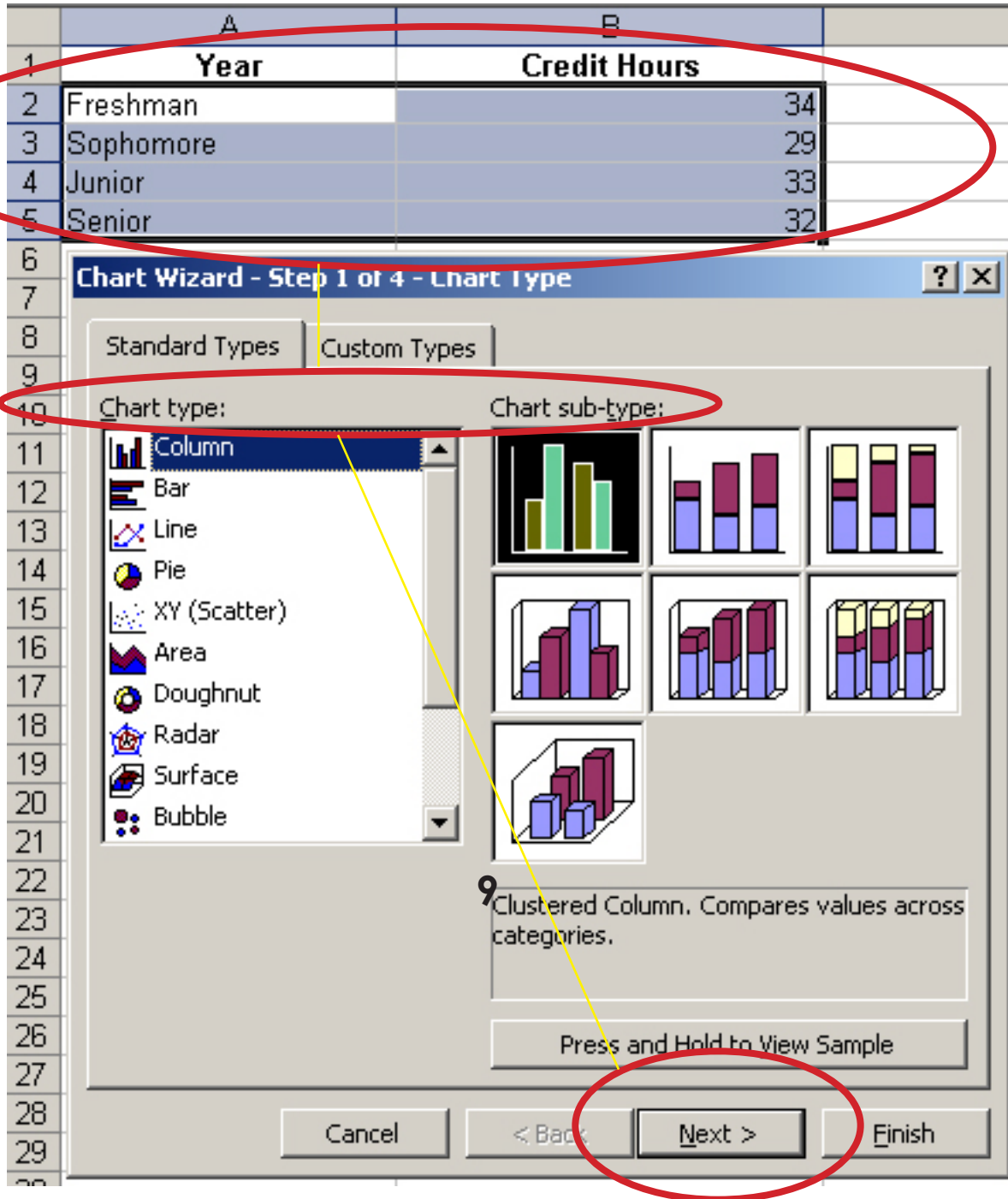


Charts

Select the cells you wish to include in your chart. Select **Insert** → **Chart**. Microsoft Excel Chart Wizard will open and guide through selecting your appropriate chart and cells. You can format the font, color, alignment, patterns, etc. using the Chart Wizard or by simply right clicking on your mouse.

Step 1

Select **Insert** → **Chart** once you have selected the appropriate cells. Choose your **Chart Type** and **Chart sub-type** if necessary. Select **Next**. The screen shot below shows a **Column Chart** for its **Chart Type**.

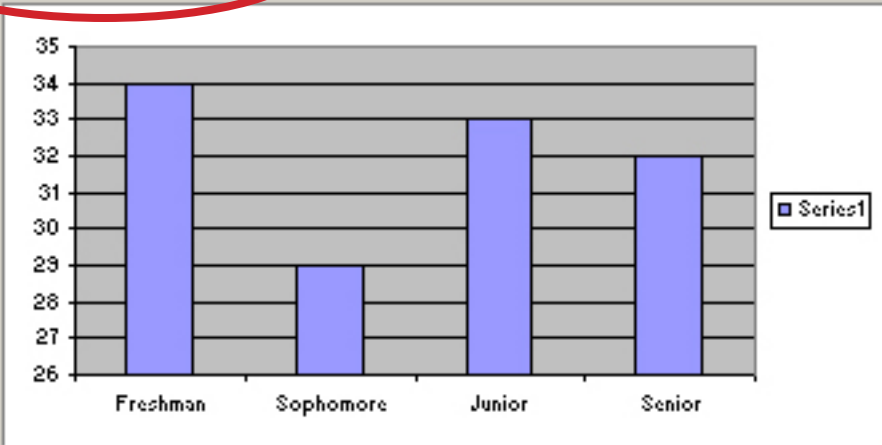


Step 2

Choose your **Data Range** and **Series** for your chart.

Chart Wizard - Step 2 of 4 - Chart Source Data [?] [X]

Data Range | **Series**



| Category | Value |
|-----------|-------|
| Freshman | 34 |
| Sophomore | 29 |
| Junior | 33 |
| Senior | 32 |

Data range:

Series in:

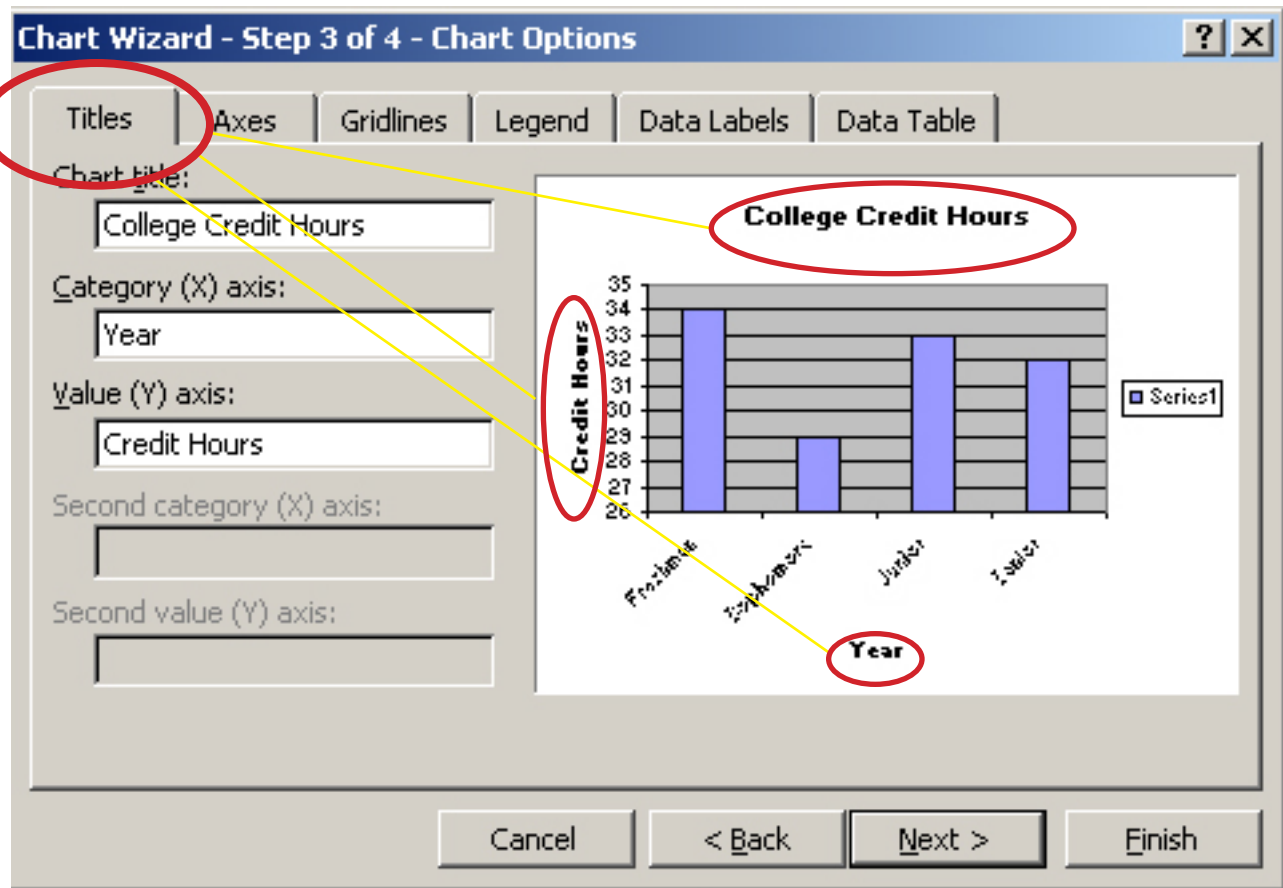
☐ Rows

☒ Columns

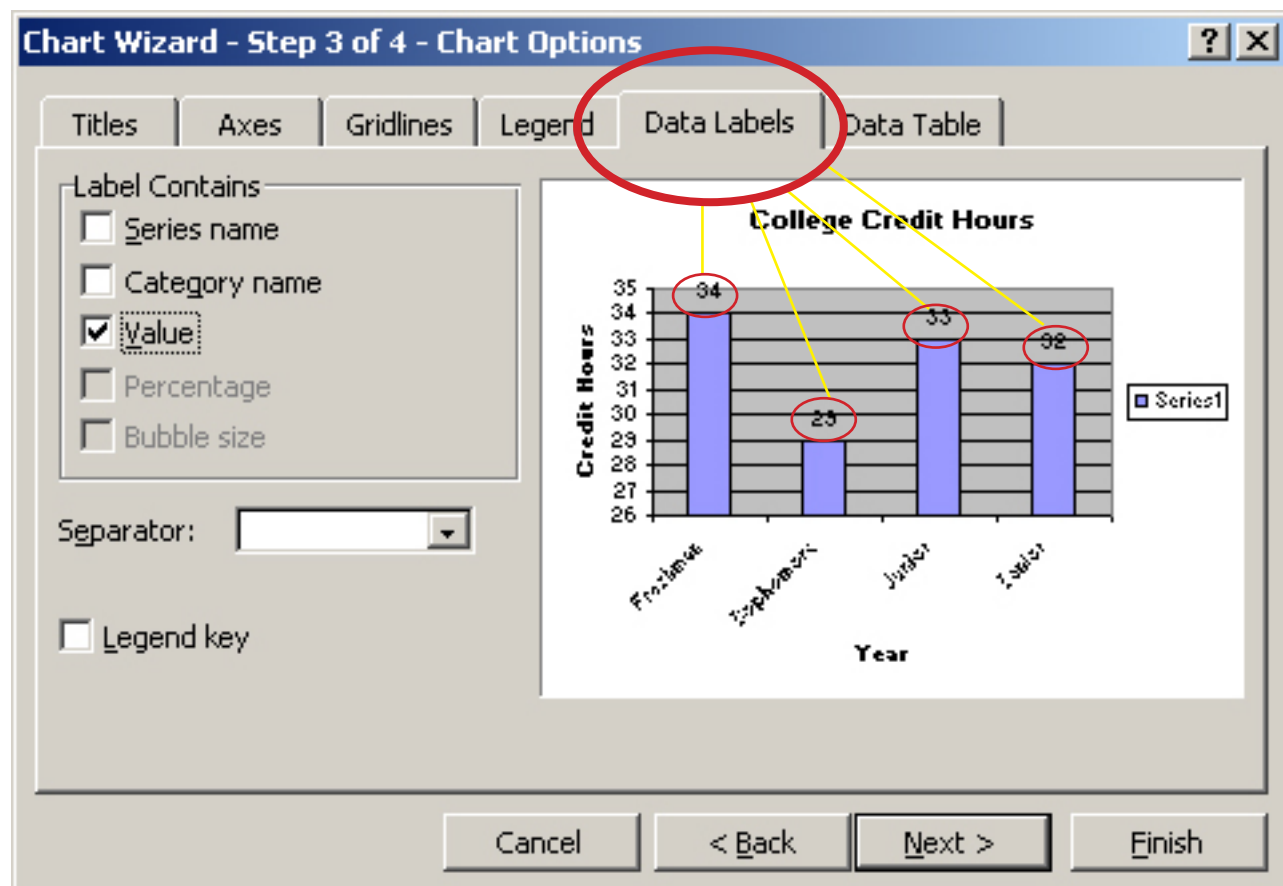
Cancel < Back Next > Finish

Step 3

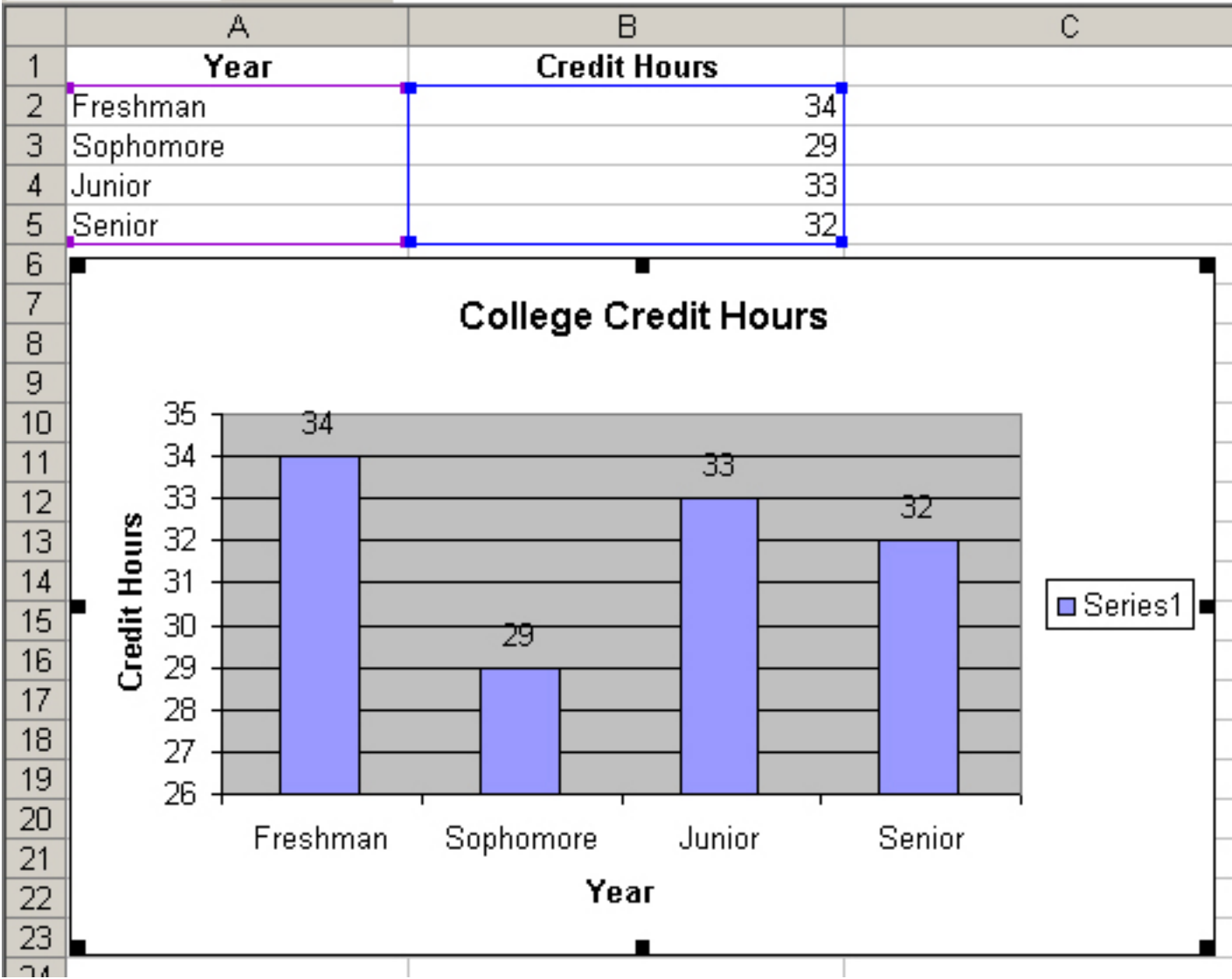
You can now start personalizing your chart. Step 3 and 3.1 show how you can add headings and change Data Labels. You can determine what needs to be included in the chart.



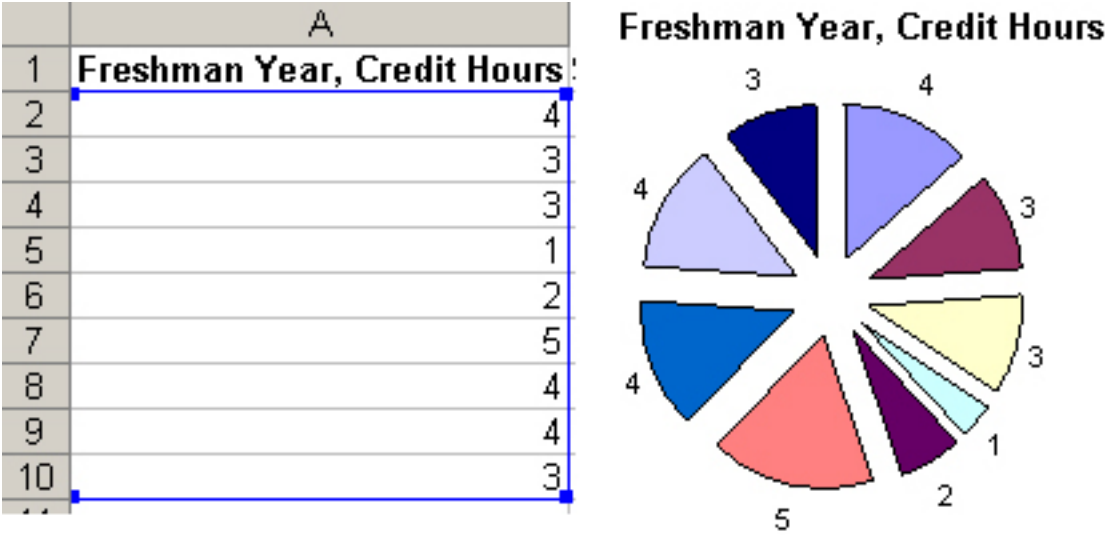
Step 3.1



Finally, You can select **Finish** and your chart will be inserted into your Excel document. Below is the completed chart of College Credit Hours.

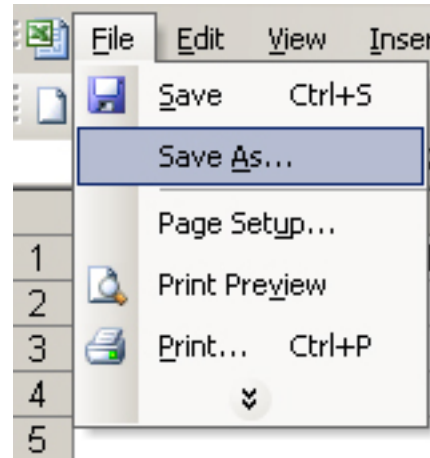


Pie chart, another example of a chart you can insert into your Excel Spreadsheet.



Saving Your Document

To save your document select **File** → **Save As**.



In the **Save As** box, type in the title of your Microsoft Excel Spreadsheet and browse to where you want it saved, i.e. your desktop, floppy disk, thumb drive, etc. The “Save As” key only needs to be selected once. After doing so, you will only need to select “Save”.



***NOTE:** Saving frequently will lessen your chances of losing your work.