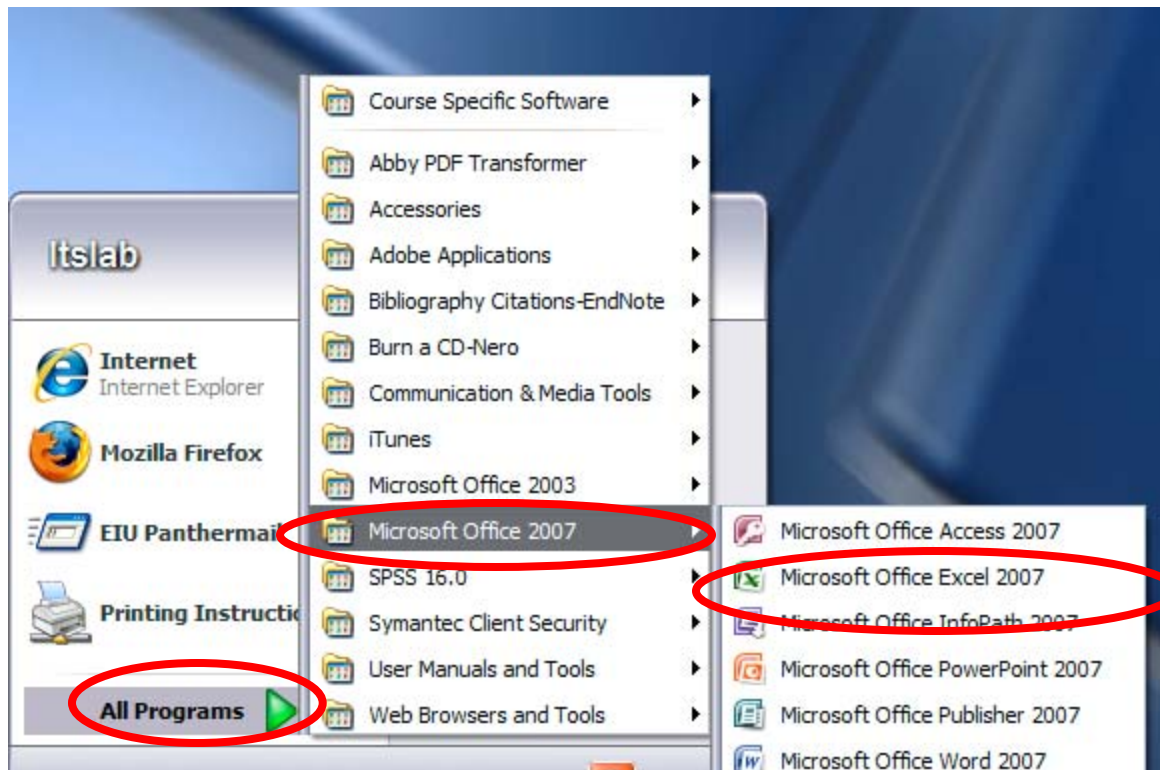


Graphing using Microsoft Excel 2007

Tutorial #1-Getting started and Creating a standard curve

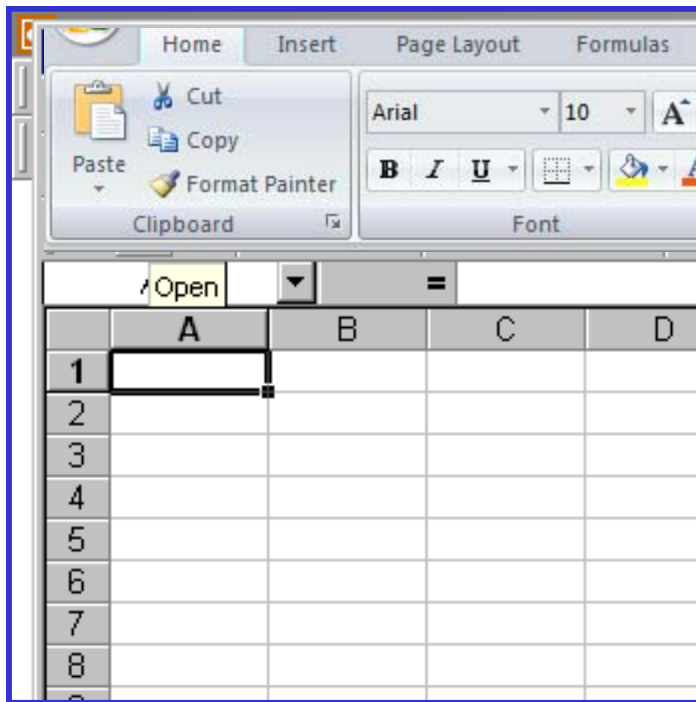
1- To open Excel....

Click on **Start, All Programs, Microsoft Office 2007, Excel 2007**



2- Entering Data

Fill in columns as shown below –simply click on the box and type in information



A screenshot of the Microsoft Excel interface showing the same spreadsheet as the left image, but with data entered. The active cell is A1, and the formula bar shows '= Concentration (mM)'. The spreadsheet grid shows columns A, B, C, and D, and rows 1 through 8. The data is as follows:

	A	B	C	D
1	Concentration (μ M)	Absorbance (400nm)		
2	0	0		
3	1.6	0.04		
4	3.1	0.06		
5	6.3	0.13		
6	12.5	0.25		
7	25	0.5		
8				

In this case, the known **concentrations** are entered into the A column, and the **absorbance** readings in the B column

3- Graphing Data

a. Select Data (including labels) by left clicking and dragging pointer across – *selected region will become blue*

b. Click on Insert, Column, Scatter

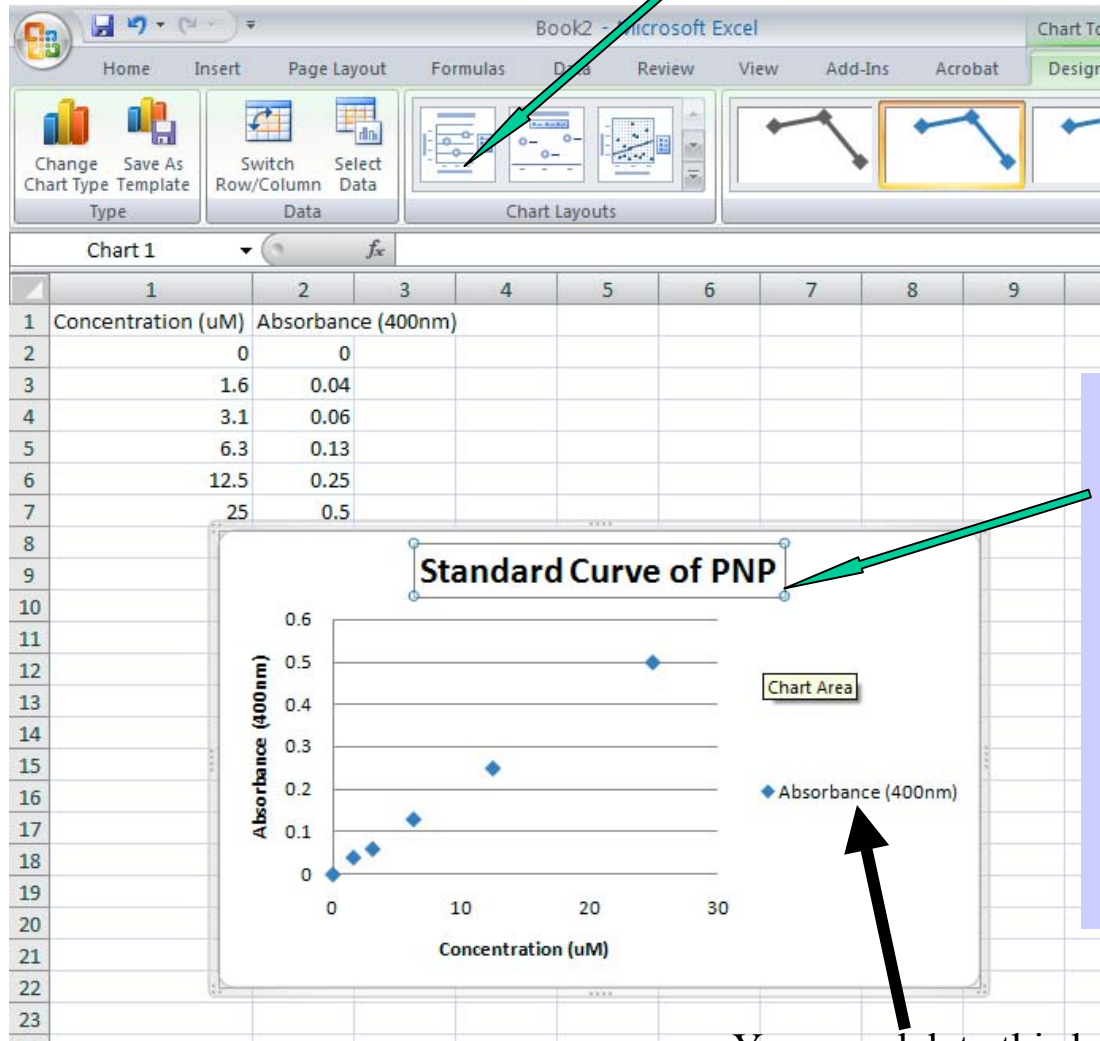
c. Choose this subtype

The screenshot shows the Microsoft Excel interface. The 'Insert' tab is selected in the ribbon, and the 'Scatter' chart type is chosen. The 'Scatter with markers' subtype is highlighted in the chart type selection menu. The data table is highlighted in blue, indicating it has been selected. The data table is as follows:

	A	B	C	D	E
1	Concentration (μM)	Absorbance (410nm)			
2	0	0			
3	1.6	0.04			
4	3.1	0.06			
5	6.3	0.13			
6	12.5	0.25			
7	25	0.5			
8					

3- Graphing Data (Continued)

d. Under Chart Layouts, select this icon



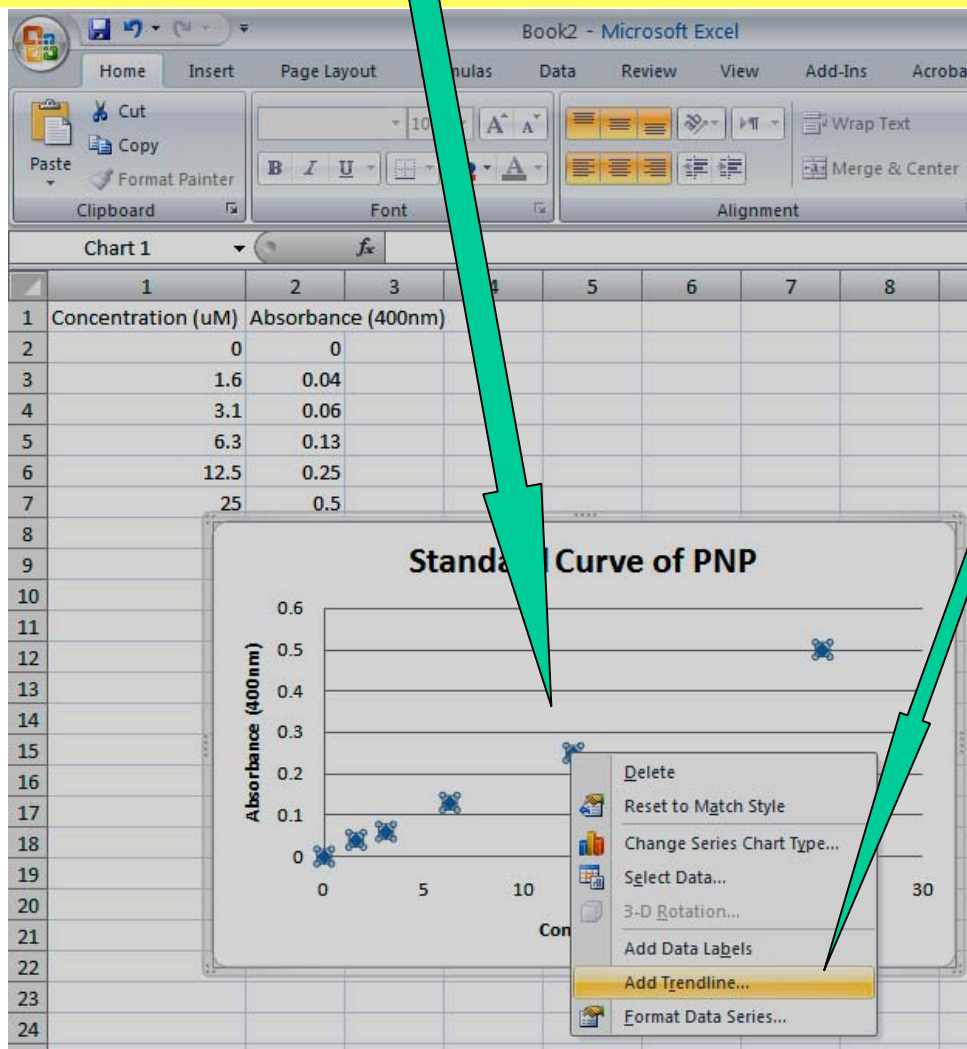
e. Now add text to title, X axis and Y axis by clicking and changing the existing text

Make sure to include units!

You can delete this box

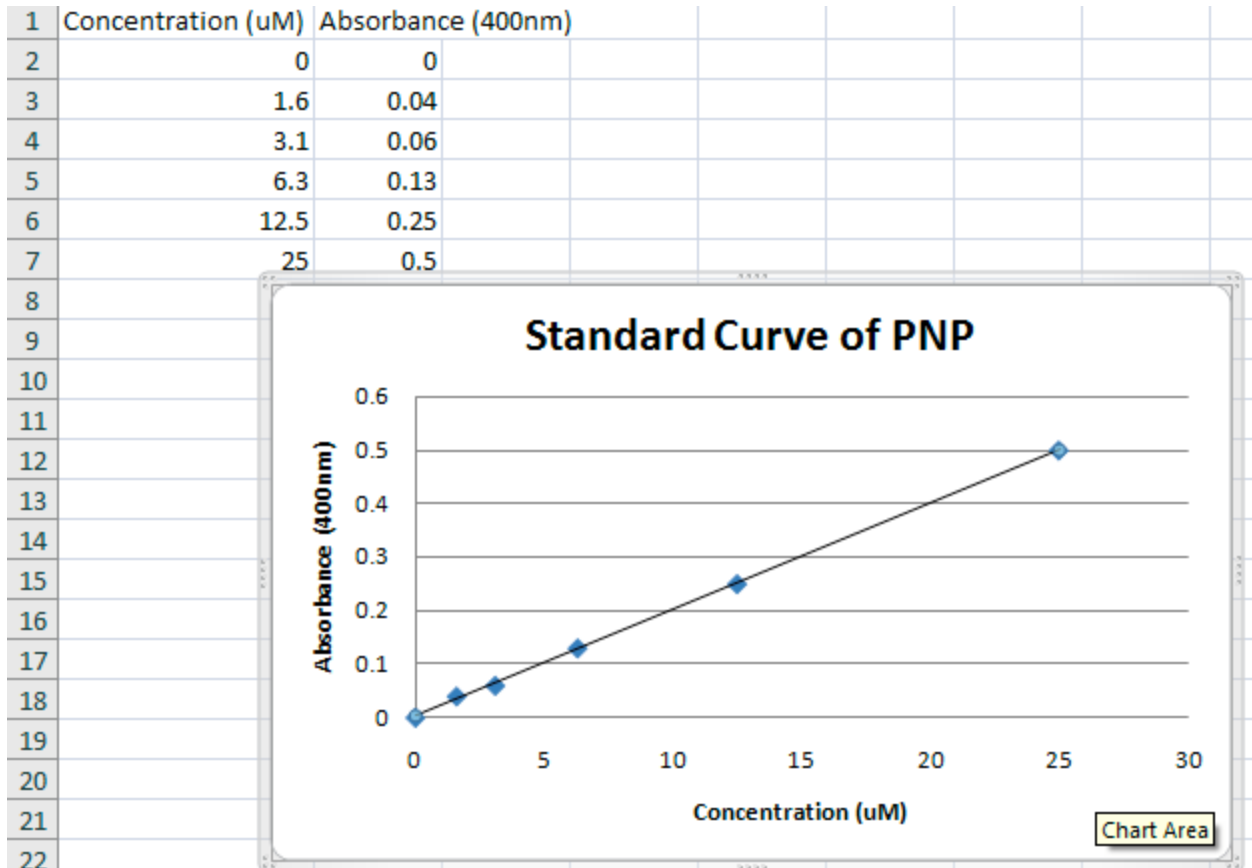
4 Modifying the Graph- inserting a **Best Fit Line**

Right Click on any data point on your graph,
then select **“Add Trendline”**



Ignore the pop-up window

Your graph should look something like this-



Now print your graph by right-clicking on graph, and selecting "print." (If the graph is selected, only the graph will print)

To determine the concentration of an unknown sample, simply plot the absorbance reading on the line and read the concentration.