**Making Charts in Excel 2010**

I have provided some simple instructions for making graphs or “charts” using an Excel 2010 program. This will save you a lot of time instead of graphing all the points by hand. Familiarize yourself with the following instructions. If you still have any problems, contact me and I can walk you through this.

***Copying the chart to a new spreadsheet***

1. Open the Excel data file from Blackboard.
2. Save this on your computer (or disc, or thumbdrive, etc) as “Heart rate data”, or choose a name of your own. To save this sheet, click once on the icon in the upper left corner of the page that looks like a computer disc and change the name of the file to “Heart rate data” or the name of your choosing. Choose the location where you want this file stored on the pull down menu and then click **<Save>** in the lower right hand corner of the sheet. This can also be done by clicking once on the **<*quad*>** symbol and choosing **<SAVE>** on the menu.
3. Underneath the table in your file, make another table. In the first column enter ‘Females’ in the first cell, ‘Males’ in the cell under it, and ‘All Students’ in the cell under ‘Males’
4. In the columns to the right of these you will be calculating the average heart rates for Females, Males and All the students in the class. So, above the cells that you will calculate these averages in, enter the following labels: ‘Resting heart rate’ and ‘Post-activity heart rate’. It should look somewhat like this:

|  |  |  |
| --- | --- | --- |
|  | Resting heart rate | Post-activity heart rate |
| Females |  |  |
| Males |  |  |
| All Students |  |  |

1. Now, you will calculate the averages.
2. In the Female resting heart rate cell, double click and then type a ‘=’, followed by ‘Average’. It will usually try to autofill this for you; make sure you select average and not another option. Then add parentheses if they are not already there, and select all the cells with the female average resting heart rates.
3. In the Male resting heart rate cell, double click and then type a ‘=’, followed by ‘Average’ and select the male resting heart rate cells.
4. Finally, in the All Students resting heart rate, repeat this instructions but use all the students resting heart rate data.
5. Then, do these similar steps to fill out the post activity heart rate column.
6. Click **<Ctrl+S>** to save the data in this sheet.

***Plotting Data using Excel***

***Plotting the heart rate versus gender data***

1. Now we will plot Heart rate vs. Gender. ***Highlight the table that you just created***. Click on the first block in the upper left corner, scroll down to the lower right corner then release the click. All the data selected should be highlighted.
2. Go to the top of the page and click on the **<INSERT>** tab. Then click on the **<Column>** icon. Finally click on the picture of the first “Column” in the lower menu that appears. A graph of Heart rate vs. Gender should appear on the page.

***Adding labels to the axes and a graph title***

1. To add axes labels, once the graph is clicked on, Click on **<LAYOUT>** at the top of the page (in the “chart tools”), then click on **<Axis Titles>**, then click on **<Primary Horizontal Axis Title>**, then click on **<Title Below Axis>**. An axis box saying “Axis Title” will appear on your graph. Double click inside the box to highlight the entire text in the box and type in the name you want, such as “Gender of Students”. Do the same for the vertical axis.
2. To add Chart title, once the graph is clicked on, Click on **<LAYOUT>** at the top of the page (in the “chart tools”), then click on **<Chart Title>**, the click on **<Above chart>**. Insert a title that is descriptive of what the results are, not just “Heart rate vs. Gender”.

***Final notes***

1. Now you have mastered Excel 2010. If you have any questions, please contact me.