How to Use Google Sheets In This Class

Stony Brook Physics Labs

Fall 2018

1 Getting the Data Sheets

You can find a folder with read-only versions of all of the data sheets linked to from the main site.

In order to edit them, you will need to save a copy. This appears in the drop-down menus as File>Make a Copy. After doing this, you should be able to edit the cells and enter in numbers of your own. (You will need to be logged in to a Google account to do this. Your Stony Brook e-mail will work.)

You can also download it under File > Download As if you would rather work in Excel (or another spreadsheet program on your computer) than Google Sheets. (You do not need to be logged in to a Google account to do this.)

If you ever find that you messed up the formatting my accident, you can go to the original read-only sheet, copy everything (Ctrl + A, Ctrl + C), then go back to your copy, go to the first cell (A1) and paste only the formatting using Ctrl + Alt + V, or by right-clicking and using Paste special > Paste format only.

This will copy all the background colors, cell borders, etc. - everything except the contents of the cells. This is handy because it won't overwrite anything you have written in your sheet, only the formatting.

2 Submitting the Data Sheets

If your TA is accepting digital submissions of data sheets, then there will be a place on Blackboard to upload your data sheet.

If you have it as an Excel file, upload it there. If you have it as a Google Sheet, download it as an Excel file and upload it to Blackboard.¹

¹Note that you do not need Excel to do this.

Your TA may allow this data sheet to replace sample calculations. If so, note that this *only* applies if you do your calculations *in* Google Sheets, *not* if you do your calculations in a calculator and just enter the numbers.

3 Colors on the Data Sheet

The data sheets are color-coded for your convenience, so you can easily identify what is necessary to do in-lab and what you can finish later. The colors are as follows:

- Yellow: Necessary to record in lab as a basic measurement.
- Green: Already dealt-with for you will automatically compute. Used for more complicated calculations, beyond what is expected of you.²
- Blue: Calculation you can do outside of lab time, if necessary. Not final results, but helpful things to have along the way.
- Purple: Key final result of your calculation.³
- Red: You can ignore these cells. (Typically covers neglected uncertainties or unused parts of the best fit line analysis.)
- Pink: Options (mostly for the plotting tool).

4 Dropdowns

Some data sheets will have drop-down menus in some cells. Click the little arrow to open the drop-down and select an option.

You can also enter in text yourself if none of the options look correct to you. There will be a warning, but you can ignore it if you make that decision. This will sometimes be necessary to do.

On most data sheets, this is only used in the "unit" cells, so that you can have a standard form for most reasonable choices of units. If you choose another unit, please try to fit it in the same style of format.

 $^{^{2}}$ This may rely on entering certain units in SI, so wherever units are pre-entered on the data table for you, enter your data with those units.

 $^{^{3}{\}rm If}$ a final result is also a basic measurement, it will be yellow. If it is already calculated for you, it will be green.