Lab Notebooks

Your **lab notebook** is a record of your labwork. It is bound notebook used exclusively for recording information and notes pertinent to experiments performed in this lab. Your lab notebook will help you to do well on your **lab reports**, which are **typed** (i.e., mini scientific papers) that you turn in for grading.

Reserve the first page of your notebook for the title page and table of contents:
Title Page: Include your name, email address, lab section and purpose of the notebook on the first page, and the names and contact information (email and phone #) for your lab group.
Table of Contents: Update weekly.

Labs:
Starting on the fourth page, number the rest of your notebook pages starting from "1" . Number front and back. Each lab should start on a fresh page with the name of the lab written and date at the top. Date all your notes if you add additional comments at a later date.

Your notebook should have four sections for each lab. First, at home, read through the complete lab exercise. *Then, write in the **introduction** and **methods** in your notebook.* **This is your pre-lab assignment (5pts)**, and will be checked by your TA before the start of lab. The **results** and **discussion** are completed during lab, and **will be checked by your TA before you can leave.**

Introduction:
• Write the purpose of the week's experiment. By the time you write your lab report, you will want to finalize a **hypothesis**.
• Bullet-point the most relevant background in this experiment, and how it might connect to a hypothesis. In other words, try to foreshadow why the current experiment is important.

Methods: State
• What you measured (**variables**)
• Type of **subjects** and how many
• T**echniques**. (e.g., Human heart rate (HR) was measured using a finger pulse transducer). Note settings.
• How it was **analyzed**. (e.g., Each individual was measured in class and we calculated the mean HR and standard errors... We tested for …).
• Reference any published or standard protocols (i.e, from lab manual), but explain any customizations.
• The experiment should be reproducible by a scientist based on your methods.

Results: Include raw data, calculations and equations in your notebook. (Data from the Chart software can be saved as text files, printed, cropped and taped into your notebook). Process this for the report. It's important to record things that go wrong as well as things that go right.

Discussion: Summarize your conclusions from the experiment. Discuss what your results mean and interpret in light of the purpose of the lab. Think about what it implications your results might have more broadly.

Note: If you have a good lab notebook, it will be easy to write your lab report because most of it can be taken from your notebook!