

Chemistry 116

Honors and Majors General and Analytical Chemistry I

LABORATORY NOTEBOOK

A bound laboratory notebook capable of providing carbon (or carbonless) copies is required. For each experiment a record of all lab activities, observations, comments, analyses, and results is to be kept.

PRELAB. Before lab, you must read the lab assignment and carefully prepare your notebook with a prelab, sometimes containing answers to prelab questions. For the in-person lab the prelab will be checked for completeness and legibility by your TA before experimental work can begin. The online prelabs are to be submitted before the beginning of lab.

INLAB. For the in-person labs you are to neatly record your observations and data directly into your notebook. At the end of the lab period you should have your TA sign the data pages used that day and turn in the originals of these pages to your TA (you will turn in a copy of these pages when you submit your lab report).

POSTLAB. The notebook contains an analysis of your data with sample calculations of each unique calculation which you did and a summary of your findings with conclusions drawn. Questions posed in the lab manual or given to you are to be answered here.

The notebook should be logically organized so that your progress through each experiment can be readily followed. It will be periodically graded (for a total of 20 points) and checked by your TA for being appropriately used.

Be sure to keep your notebook up-to-date.

The notebook must comply with the following:

1. notebook dedicated to CHEM 116; do not use a notebook from a previous course
2. contain a table of contents
3. pages numbered and dated
4. no torn out pages; neatly cross out unwanted pages
5. **all** entries written legibly in blue or black ink
6. corrections made by drawing a single horizontal line through item to be corrected; no white-out
7. use correct English grammar, spelling, and punctuation throughout
8. all data entered **directly** into lab notebook - TAs will confiscate data written on loose sheets
9. data pages signed by TA on date data is recorded
10. contain data and analysis for **all** assigned experiments
11. clearly indicate all final analyses and final results
12. all plots, graphs, and computer-generated material (do **not** copy lab procedure) neatly taped or glued (not stapled) into notebook; all fitting of data to straight lines done by linear least squares regression with slope, intercept, correlation and standard deviations of slope, intercept, and fit given - you may save space by attaching these to the back side of pages in the notebook
14. contain a completed **pre-lab** written before experimental work can start (~1 page in-person, ~3 pages online):
 - a) title for the lab
 - b) a concise description of the experiment to be performed and its goals written in **your own words**
 - c) all balanced chemical equations, physical constants, and data relevant to the experiment to be performed
 - d) a flow chart or outline for the experimental procedure written in **your own words** (**not** photocopied or cut and pasted from lab procedure)
 - e) formulas needed for calculations (both to perform the experiment and for its subsequent analysis)
 - f) calculation of all quantities needed to perform the lab procedure
 - g) outline of calculations used to convert experimental data into the answers required
 - h) all safety issues involving the experiment clearly noted
 - i) answers to any prelab questions
 - j) (optional) good lab practice would also entail preparing tables for the data you expect to collect that day