

## Laboratory Notebook Requirements Quantitative Chemical Analysis (CHE310)

A scientist's **Laboratory Notebook** fulfills the following objectives:

- documenting experimental procedures, results, and discoveries attributable to the individual scientist
- providing a written account of experimental work which allows later duplication by the individual or by another worker if necessary
- establishing a legally acceptable document in support of laboratory data which may be used to resolve patent, regulatory, civil, or criminal litigation

Students in CHE310 will be required to maintain a Laboratory Notebook in a fashion that approaches that acceptable in a commercial laboratory. Accordingly, the **following requirements will apply**:

- The Lab Notebook must have sequentially numbered pages that cannot easily be removed. In addition, the notebook must have a removable duplicate of each numbered page that records a carbon copy of each written entry on the original page. The preferred type of notebook is one with quadrille rulings (so that data can be graphed; figures can be blocked out; etc)
- The first two pages of the Lab Notebook should be set aside and clearly marked as the "Table of Contents". These should be filled in with appropriate page references throughout the semester. The carbon copies of these pages should be retained until the end of the semester.
- Pages must be used consecutively, starting with page 3, for laboratory records.
- All entries must be made **in ink using a ball point pen. Erasures are not permitted.** If a mistake is made, draw a single line through the erroneous material and make a corrected entry immediately following.
- All data are to be recorded **directly** into the Notebook. Recording of original data on loose pieces of paper is to be avoided. If data must be obtained on separate sheets of paper (e.g., the printout of a laboratory instrument) the loose paper must be cemented into the Notebook on the same day it was taken and the Notebook entry should refer to and identify the loose paper that has been cemented in. A photocopy of the same loose paper must be cemented to the copy page. (*A copy of all graphs associated with an experiment should be cut and pasted into the notebook on all sides using Scotch tape.*)

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- **Every** page must be **titled, dated** and **signed** by the student at the bottom of each page, and at the end of each day's entries.
- Keep all data **orderly, legible and sufficiently** well-labeled as to be clear to anyone. Do not crowd data; there are many more pages in the notebook than you will use. Each entry should have a label or units (e.g., **M**, mg., mg/mL, etc).
- Begin each day's entries on a new page. If it is desired to start a new entry on a new page when the previous page has not been entirely filled, draw a diagonal line across the unused portion of the page. **Leaving a page blank for later use is absolutely forbidden.**
- **NEVER** record data or observations obtained on a subsequent day on a page previously used for a prior date!

### *At the end of each laboratory period*

- Carbon copies of each day's work must be turned in to the Lab Instructor before leaving the lab. Each page should include the copy of the date and signatures on each of the original pages.
- Deviations from the above specified procedures will be **rare; must** be documented in the Notebook; and must be **approved** by the Lab Instructor, with the Instructor's signature and date recorded where the deviation is documented.