

# Chemistry 101L

## Notebook Guidelines

## The General Purpose of your Notebook

There are several reasons why you are required to have a notebook. Some of these reasons are listed below:

- \* A notebook is a place where you can record all of your observations and data from an experiment.
- \* A notebook or an electronic format of a notebook will be required in your future from your employer.
- \* Your instructors hope that the data you have recorded in your notebook will both help you learn the material better and also do perform better on laboratory tests

## General Requirements for your Notebook

1. Your notebook must be bound, having duplicate style sheet. Do not remove original pages from the notebook.
2. Write your name, Chemistry 101, your lab section, and semester on the inside front cover.
3. Write only on the front side of each white sheet. A duplicate copy will automatically appear on the yellow/blue sheet behind it. Apply sufficient pressure to make a legible copy, but not so much that the writing appears on the next pair of sheets. Remember to place the cardboard between each pair of sheets.
4. Unless your lab notebook has a table of contents, reserve the first two pages for a table of contents.
5. All entries in your lab notebook must be made in permanent ink. If you make an error, do not attempt to erase it or use a whiteout. Just draw a single line through the incorrect entry.
6. Learn to write in the past tense, third person (without the use of personal pronouns such as I, we, and my).

## Required Sections for Each Experiment

**Title:** Begin each new experiment on a blank page. Put the full title of an experiment on top of that page. (Write the same title in your table of contents along with the starting page number).

**Objectives:** Under the title, list the specific objective(s) for the experiment in concise statement(s). Write a short statement (one or two sentences, in your own words) of the purpose or the goal of the experiment. If experiment contains more than one part, indicate objective of all parts of the experiment.

**Procedure:** Procedure should be written in the past tense and third person, including amounts of each reagent used, size of glassware, and equipment(s) used. You may write this either as a paragraph or by numerical order. Use only the left column of the notebook. Right column will be used for observations and data to be recorded. \*\*NOTE. The three sections above must be completed before you come in to the lab (no lab will be started unless the following sections are completed).

**Observations and Measurements:** You should record observations of everything that happens during the experiment as it happens using right column of the notebook. Especially pay attention to any change in color, the amount of time it takes for a reaction to occur, unexpected occurrences, temperature readings, amount of solvent used in the reaction, etc. Also write down any modifications you make to the procedure in this section. All numerical data should be recorded directly in the notebook with the proper units. Any data recorded by an instrument on another piece of paper, such as spectrum, should be permanently attached into the notebook as instructed. Record the model number of the instrument, the serial number, condition, and setting used.

**Calculations:** All sample calculations must be shown in the notebook, including the subtracting of masses to find the mass of a sample, the use of density to convert between mass and volume, the use of molecular weight (or molar mass) to convert between mass and moles, etc. Remember to label all numbers with the appropriate units. Your calculation section must include a balanced chemical equation, calculation of the theoretical yield, and calculation of the percent yield of product.

**Results:** Summarize experimental findings in a tabulated format with correct significant figures and appropriate units.

**Conclusion:** The conclusion section should include a restatement of what was accomplished in the experiment, a summary of the results, and an analysis of these results. If the results are different from what you expected, discuss possible sources of error. Also, write down any suggestions you have for improving procedure.

**References:** Give the complete bibliographic information for the laboratory text used. (Title, author, publisher, date).

**Questions and Problems:** Answer questions and problems assigned either from laboratory manual or provided by your instructor.

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**Title**

**Objectives**

**Procedure**

**Observations and Measurements**

**Calculations**

**Results**

**Conclusion**

**References**

**Questions and Problems**

Experiments are due one week after the completion of the experiment.