How to set up and use your lab book for Chemistry 150

Buy a suitable lab book. Carbonless copy lab books are convenient, though photocopying pages from a non-carbon copy lab book is okay (the copies must be dark enough to read, though). With the carbonless copy lab books, be careful to use the backing board!

Please write legibly. This means that you should use as much space as it takes for your writing to be clear to the reader. Do not “scrunch” the last column of a table or the last line of a procedure in an effort to save space; “wasting” another sheet of the lab book is far preferable to a lower grade on the lab.

Use a metal-point pen (no felt tips or pencils). Make sure you use enough pressure, for carbon-copy lab books, to make a legible copy.
Though you will have a partner, and though you or your partner will be busy at different times during the lab, you are both expected to keep independent notebooks; that is, you should not copy the post-lab sections at all. Clearly, while you are performing the experiment, it is okay for you to copy your data from your lab partner. Keep in mind, though, that in a research situation, you usually don’t have a lab partner and thus would be expected to write down the data as you are doing the experiment.

Reserve the first page for the table of contents. Remember to update the table as the quarter progresses.
Pre-lab

On the first page of each lab write-up, do remember to write your name, your partner’s name (make sure your name is first) and the title of the lab. Immediately below this, write the purpose of the lab (part 1) in a couple of sentences. Also include relevant overall chemical equations, if appropriate.

For the materials and methods section (part 2), observe and sketch the lab equipment to be used. The sketch need not be a work of art, but it should be recognizable and show the equipment setup and not a set of components. Use labels to identify pieces of the setup.
Have a clear idea of what sort of tables (part 4 – data) you will need.

**During lab**

The procedure (part 3) should be written down as you and your partner perform the lab. In this way, since you are essentially keeping a journal of your actions, if the results are poor at the end of the lab, you can compare your procedure with that given on the website. In practice, you may (when instructed), write down the procedure as part of the pre-lab; you should leave enough space between steps such that, if a change in the procedure is necessary, you have sufficient room to write it down. Notice the double-spacing in the example shown below.
The data (part 4) should be organized into tables. The tables should be organized such that each trial of the experiment has its own line (for that reason, you may wish not to put a bottom line on the table until you are quite sure that you are done). In some labs, more than one table will be needed because different kinds of data will be taken.
The calculations (part 5) should be written neatly; you may wish to perform the first set of calculations on the back side of the previous page or on another sheet of paper. For these labs, one set of calculations for one of the trials will suffice (you can include all of the trials’ calculations if you wish), since I believe you can repeat the same calculations without error. Please organize the results of your calculations into a table, organized by trial number.

Post-lab

The results of the group (part 6) will be shared usually the day after the lab is completed. Both you and your partner are expected to copy down the results in your own books. The calculation of averages and standard deviations should be done independently (that way, you can check each other for accuracy).

The questions (part 7) are designed to help you write the conclusion (part 8). It is okay to word-process the questions and answers and tape or paste them into the appropriate part of the write-up; it is also okay to write the questions and answers straight into the lab book.

The conclusion should be handwritten into the final section of the write-up. This is more than a summary; it is an error analysis and suggestions for modifications of the experiment for future Chem 150 classes. Sometimes I will suggest the exact wording;
sometimes I will give suggestions about how the paragraphs in the conclusion should be organized. Toward the end of the course, you will be on your own as to what is expected.