The format of your lab should follow a coherent style paralleling the format of a scientific paper. It should contain the following sections:

1. Abstract
   Stating objective, method / approach, observed results and conclusion. Be brief, several sentences will suffice.

2. Introduction
   Stating goal/objective, background, formulas, equipment, and summary of results. Try to be concise as well.

3. Procedure
   Including diagrams and procedures.

4. Results
   Presenting data tables, plots, graph etc. Also including result calculated from the experimental data.

5. Discussion
   Discussing results and questions.

Introduction
Suggested rules for a good introduction are as follows:

1. It should present first, with all possible clarity, the nature and scope of the problem investigated.
2. It should review the pertinent theory to orient the reader, including the necessary statements and equations.
3. It should state the method of the investigation. If deemed necessary, the reason for the choice of a particular method should be stated.
4. It should state the principle conclusions suggested by the results. You should try to give a brief interpretation of the experimental results based on the theory and your observation.

Procedure
This section should present a concise but complete account of the procedures followed during the experiment. Circuits and block diagrams should be included here.

Results
The results section should contain the required plots, graphs, tables and any other relevant data taken during the course of the experiment.
**Discussion**
The discussion should provide an interpretation of your results. This is the section where the data from the results section are given meaning. This should be a demonstration of your understanding of the connection between the theory, the methods and the data. Try to propose and answer new questions based on the experimental results and your observation.

The following are a few suggestions for the laboratory reports required in this course:

1. Enter enough information so that the reader does not need to refer back to the instructions in order to understand what you are doing.
2. Sketch the diagram. A good diagram saves many words and helps the reader understand your work.
3. When you plot a graph, don’t forget to label the axes and have a title.
4. When checking experimental work with calculations, write out the equations using clearly defined symbols first and then substitute experiment data.
5. Give units for all results.
6. Comment on agreement or lack of agreement.
7. Write out the headings for each section of your report in English. Headings in the form of numbers or alphabetical letters are inadequate.
8. It is a good idea to name the meter or laboratory instrument used in the measurements. A person skilled in the art should be able to read your report and repeat the experiment.

The above suggestions are only for your reference. You do not need to follow a rigidly defined format as long as the necessary requirements are met. The bottom line is that your lab report tells the instructor what you did during the experiment and the reader should not need to go back and read the printed laboratory instructions in order to determine what you were attempting to do. Write down any technical problems you encountered in the laboratory and add any suggestions for improvement of the experiment. These add originally to your work and are always welcomed.

During the experiment, you will be working in groups of two, i.e. with one other student. Each student must turn in his/her own report. You will be given the liberty to find your own partner. However, each individual must be an active participant.