Instructions for writing a Lab report

The format of the laboratory reports may vary slightly depending on the project. A sketch alone will not be sufficient for ANY laboratory; you should describe what you did in sufficient detail that the grader should not need to know in advance which lab you are reporting on. Depending on how well you write (communicate), and the nature of the lab, you may have anywhere from three paragraphs to a page or two of writing. BE CONCISE. Interpretation of your results is also important. ALL LABS MUST HAVE A CONCLUSION (compare what you started out to do with what you did and state the result). Although sketches are not sufficient, they are usually necessary. Accuracy is important in the sketches; use a weak flashlight with a red covering for the lens while you are sketching outside in the night so you can see without ruining your night vision. Do NOT return the lab hand-out with your report (unless directed otherwise for a specific lab). Items listed below must be in each and every lab report:

- (1 pt) Title of the Experiment
- (1 pt) Your name.
- (1 pt) Viewing location and names of other students present, if any.
- (3 pts.) A statement of purpose. One or two sentences stating the objective(s) of the lab (in your own words) will be sufficient.
- (4-6 pts.) An explanation of procedure. This section of your report is most important. It should contain a concise and well-written description of what you observed/measured and how you did it. NEAT diagrams are acceptable as long as they are accompanied by appropriate explanation.
- (6-4 pts.) Data and Calculations. The length and importance of this section will vary depending upon the project. Always include the time and date of your observations (remember the date changes at midnight). Use tables and graphs where appropriate. Include units and label the axes of graphs. Use SI units and scientific notation. Do not get carried away with excessive precisions – three significant figures are sufficient. Show all your calculations. If the final answer is wrong, but the grader finds that everything was okay until the last step, you will not lose much credit.
- (4 pts.) Conclusions and analysis. State the results clearly and discuss the relation between your results and the expected or predicted results. Include possible sources of errors.

Note: Keep up with due dates. Late labs won’t be accepted. You need to turn in hard copy by the beginning of class on the due date. Emailed lab work will not be accepted. If you want to turn in a lab earlier than due date you can do so. Bring the completed lab to my office. If I am not in my office you can turn in to the room 3801 (next to my office). Room 3801 is UCD physics office where you will find office secretary.