EE115AL Spring 2004 Lab Report Grading

The purpose of the lab report is to present your results in a clear and concise manner. Lab reports are turned in at the beginning of class one week after the lab has been performed. Each lab report is worth 55 points, consisting of the prelab (20 points) and the lab writeup (35 points).

**Prelab (20 points):**
Prelab is done BEFORE you come to class. Read through the lab you will be performing and answer all the prelab questions and do the calculations. This is by far THE most important part of each lab, because when you arrive in class you will be verifying your prelab results by doing measurements on your circuit. If you don’t do the prelab, you won’t know what’s going on in lab! The TA will walk around and sign off your prelabs at the beginning of class, but you will keep them until you turn them in with your lab report a week later.

**Lab Writeup (35 points):**

**Title/Cover Sheet (1 points)**
Title the report along with your name, student ID, partner’s name, date and section.

**Introduction (3 points)**
Why are you doing the experiment? Describe the goal of the experiment and the theory behind it. After reading this section the reader should know what to expect in the report.

**Procedure (3 points)**
Summarize the methods used to perform the experiment in your own words. Use figures and circuit diagrams to illustrate the setup of the lab.

**Results and Discussion (25 points)**
Present the results of your experiment and discuss what your data tells you and what conclusions you can draw from them. You should concentrate most of your time writing this section since it shows the most about how well you understood the lab and if it was performed successfully.
When presenting your results, put data in tables for easy readability, and try to put the graphs inline (instead of on a separate page) so that the reader can refer to them easily without flipping pages.
When interpreting your results, try to answer the following questions. What does your data indicate? Does it make sense? How does it compare to theory? Provide theoretical explanations for your results, and comment on any sources of error that might have affected the reliability of your measured data.

Note: Additional things to include in your results and Discussion section:
- Units - ALWAYS put units on numbers and label your graphs, tables and figures (3 points).
- Error analysis – create tables that compare your measured results vs. expected results from prelab along with the percentage error (3 points).
- Lab manual questions – the lab manual will ask you to measure specific things and to answer specific questions in the lab. Remember to answer all of these and box your answers (2 points).

**Conclusion (3 points)**
Was the experiment successful? Did it demonstrate the theory? Discuss the implications and meanings of your finding. What have you learned? Did you have any problems? How could the experiment be improved?

**Policies:**
- Partners should collaborate on the labs and share the data, but the prelab and lab writeups should be done individually.
- If you miss a lab, you cannot get the data from someone else and write it up. You need to make up the lab on your own time and get a TA or professor to sign it off.
- 5 points will be deducted if the prelab is not done on time.
- 5 points will be deducted for each day the lab report is late.