Laboratory Report Guidelines
Update April 17th, 2007 for EE115BL
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Overview

A Driven Process

One or two days after the lab is released I will release a lab report question sheet which will present a series of questions that you will answer in your lab report. Answering these questions (in the format described below) is all that I expect to see on your reports. You do not have to write a 12 page introduction, copy the lab manual, nor all other manner of tasks consuming copious amounts of time unless specifically directed to do so.

IEEE Format

Per Dr. Babaie’s instruction, your EE115BL lab reports must look, feel, and read professionally. The world’s largest professional organization is, by far, the IEEE. IEEE runs over a thousand international conferences and even more publications (Journals, Transactions, Proceedings, Magazines, etc). These publications are where new scientific discoveries are first made public. If you continue to graduate study you will have to publish your findings in one of these publications. With the exception of the magazines, which are designed to be fun and accessible, all of the serious scientific/engineering publications require that your submitted work be in the IEEE format. This is the format that we will use in this class. You may download a Microsoft Word Template file from the class website which contains an overview of the IEEE format (the document itself is even formatted using IEEE guidelines) to use as a starting point (highly recommended).

Laboratory Check-Offs

You will need to demonstrate your working PCB to either myself or Dr. Babaie prior to or on the day of the due date of the lab-report. I usually can not stay late on Friday afternoons so do not rely on a last-minute check-off. Since the check-off system is designed to prevent fraudulent action on the part of course participants, there is a 30% deduction to your lab report if you do not have a sign-off on your underlying circuitry.

Turning In the Report

Lab-report should be done individually. DO NOT STAPLE your work. Use a paperclip, binderclip, etc… DO NOT PRINT DUPLEX (which means, do not print on both sides of the paper). Your work goes through an auto document feeder and is scanned for ABET and archival purposes – and to discourage cheating. I will return your graded lab reports as soon as I can after you turn them in with comments and remarks. After your review, you may discuss any issues with me in person (I have the scanned original. Do not attempt forgery). 5 points per day will be deducted if your lab report is turned-in late (up to 25points).
Grading

Section Values

The four lab reports contribute to 55% of the overall grade of this lab. All four lab reports are not weighted equally (see the course website for further detail). For each lab report the point breakdown by section is as follows:

General
05% Presentation / Organization (stylistic choices)
10% Format Compliance (compliance with the IEEE format)

Lab Report
05% Abstract
10% Introduction
20% System Architecture
20% Experimental Procedure
20% Results
10% Conclusion

Extra Credit

Some lab reports may have an extra-credit problem in their question set. If present, the extra-credit problem is worth a bonus of 5% (partial-credit may be awarded). However, I would caution you with these few notes about extra-credit:

1. Extra-credit can not be earned if the entire regular lab is not attempted (i.e. you can’t do it instead of the regular lab)
2. Extra-credit items are hard… on purpose… and I can not devote much time to assisting you with these additional items since my first priority is students still attempting the assigned sections of the lab
3. Extra-credit is very few points and will not be worth your time if you do not find a genuine interest in the material
4. You can not earn greater than a 100% score on the lab. Essentially, extra-credit is an insurance policy
Comments on the IEEE Format

General
Templates (including other software file formats) and more in-depth information about the IEEE format is available directly from the IEEE by visiting the URL below (I know that is a lot to type in) or by using the search terms “IEEE format template download” in Google (a lot easier).

http://www.ieee.org/portal/site/mainsite/menutem.818c0c39e85ef176fb2275875bac26c8/index.jsp?pName=corp_level1&path=pubs/transactions&file=stylesheets.xml&xsl=generic.xsl

Equations and Figures
I’ve commented on this in detail inside the template file, but I’ll make one important addition here: To save time (if you are having trouble), and at your option, you MAY handwrite in your equations/figures/plots/etc…., but they had better be neat and legible. I will not give back partial credit for errors caused by my inability to decipher your data. If you choose this option, you must still use the IEEE format for your report which includes leaving a blank space in your report to insert the graphic data, but labeling it (ex. “Fig 2.”, “Table I”) in the printed portion of your report (exception: equations may be labeled by hand). Also, to save time, I will allow large schematics (which need to be large in order to be easily reviewed) to be attached on a full sheet of paper at the end of your report, but they must have a figure number and they must be referenced and explained in the report as if they were inserted correctly under the IEEE format guidelines.

Style and Organization
As part of the “professionalism” training part of this course, I will be evaluating the overall look and feel of your paper. Although I give you the basic 5 category outline (from which you may not deviate), sub-levels of organization are completely up to you. Using the Microsoft Heading Styles (Heading 2, Heading 3, etc) already defined in the template, you are free (and encouraged) to create your own sub-categories beneath the five that I require to make your “paper” easier to read and understand. YOU DO NOT have to follow the sub-categories that I provide in the lab question sheet (only the five top-level categories: Introduction, System Architecture, etc). Remember that a small part of your grade is how well organized and presented the paper is (which should be very easy since I give you the basic structure I want).

References
UCLA Academic HONESTY POLICIES APPLY TO THIS COURSE! If you use a reference, you must cite it using IEEE format (I do not care if the formatting of the reference data is exactly correct under IEEE guidelines, but make your best effort to comply; What I do care about is the format of the paragraph and parenthetical, “[3],”
and the accuracy of the information contained in the citation). If you plagiarize, very bad things will happen to you. Cheating isn’t worth it. I do check.

**Final Remarks**

1. **I respect your time** – This lab report format is designed to save you time and teach you a useful skill that will help in your future employment. If you are taking more than 2 hours to prepare a lab report, when you know the answers, then you need to see me because there is probably a misunderstanding between us.

2. **Do not BS me** – I have lived and breathed this material since I was 13 years old. I can tell when you understand and when you don’t. I value substance over length. Do not think that you can bury me in your writings as a distraction tactic.

3. **Short, Sweet, To the point** – If you write it, I will (have to) read it – don’t waste our time. Yes, *I ACTUALLY READ EVERYTHING YOU WRITE!*

4. **No Lab Manual** – Do NOT include the lab manual in your report! – I already read that and I know that Dr. Babaie knows how to design an amplifier! Do not copy introductory material unless you think it is absolutely necessary to answer a lab report question that I have proposed.

5. **Data, Data, Data!** – Labs are about data gathering. If you measured it, best to report it too. If you get a wrong result, I can be more forgiving if there is more diagnostic information collected. It shows me that you at least tried to figure out what was wrong.

6. **Brains over Braun** – In general, unfortunately, grading can become somewhat subjective in certain situations. You will always get the best grades from me when you show depth and comprehension, even if you are slightly off target and especially when you have bad data, but excellent (and correct) analysis of that bad data.

7. **TALK TO ME!** – I will not be receptive to last minute, “but I didn’t know that was what you meant!” arguments. If you have a question, contact me early and often. If you can not find me during the day hours *AFTER checking the lab (E4 15-138) AND my research lab NESL (1762 Boelter Hall),* call me (my number is posted on the course website).