Laboratory Policies and Report Format

ECEN 248: Introduction to Digital Design

Department of Electrical and Computer Engineering
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Introduction

Welcome to the laboratory portion of ECEN248, an Introduction to Digital Design. The objective of this document is to provide you with a guide to completing the laboratory assignments required for ECEN248. Report format and grading policies will be discussed in addition to general policies and procedures.

Report Format

Each lab assignment has two deliverables, the pre-lab and the post-lab report. Pre-lab reports are due at the beginning of the lab period, while post-lab reports are due before the beginning of the next lab period. The purpose of the pre-lab report is to prepare you for the corresponding lab, while the purpose of the post-lab report is to document your efforts during the lab. The items listed below must be addressed where appropriate in both the pre-lab and post-lab reports in order for you to receive full credit. Please note that neatness and organization will be rewarded. Points will be deducted for any part of the report that is not clear!

1. **Cover Page:** You should include your name, the course number, the section number, the lab number, the TA's name, and the date.

2. **Objectives:** Provide three or four major points you feel the lab is attempting to teach you. Do **NOT** simply repeat the wording in the lab manual. Remember, you should write about what you will *learn*, not what you will *do*. Keep in mind these are not necessarily the same.

3. **Design:** This section contains the steps required to successfully complete the lab along with all necessary diagrams, schematics, tables, equations, K-maps, source code (for later labs) etc. Each of the aforementioned items in the design section should include a written description contained within the body of the text and should be labeled properly. Simply including a circuit schematic is not sufficient!

   Note: As part of the design process for the first four labs, you will create gate level schematics for each design. The schematics must be complete such that the design can be correctly implemented by referencing only the schematic. For the pre-lab, schematics may be hand drawn. However, for the post-lab, schematics must be drawn on the computer using your choice of drawing program. Your TA can recommend freely available software packages if you do not have access to a drawing program.

4. **Results:** Use this section to discuss the observations you made during the lab. Include a comparison of what you expected to what you actually observed and provide an in-depth discussion of why you feel the circuit you built behaved the way it did. Like the design section, include diagrams and tables

where appropriate. Be sure to label them properly and provide an adequate description in the body of the text.

5. **Conclusion:** This section should briefly summarize what it was that you did in lab and provide some insight into what you learned. Additionally, you should mention skills you acquired during the execution of the lab assignment and discuss how you might use these skills in future labs. This portion of lab should tie into the objectives you talked about at the beginning of lab.

6. **Questions:** Finally, you must thoroughly answer the questions provided in each lab. These questions are presented to you in order to test your understanding of the topics in the lab. Brief, one-line answers are **NOT** acceptable!

   A Note for Honors Students: For those students in the honors section, be aware of additional challenges added to the regular labs. You will be expected to complete these additional parts of lab for full credit.

Grading Policies

Each pre-lab and post-lab report must be complete per the guidelines provided above in a timely manner in order to received full credit. Please note that the material provided in the pre-lab report will be needed to complete the lab assignment. Therefore, you are responsible for duplicating necessary material you submit for the pre-lab. The following policies will be enforced throughout the semester unless an agreement between you and the instructor is worked out before hand.

1. **Late Pre-lab Submissions:** Pre-lab reports may be turned in a day late for 50% credit. Pre-labs submitted later than one day will not be accepted.

2. **Late Post-lab Submissions:** Post-lab reports may be turn in up to a week late for 50% credit. Post-labs submitted later than a week will not be accepted.

3. **Demonstrations:** Certain parts of the lab will ask that you demonstrate your progress to the TA. These serve as check points which allow the TA to keep track of your progress and provide for partial credit in the event the lab is not fully completed.
   Note: You are required to complete these demonstrations prior to the next lab either in the allotted lab time or during the TA's office hours. If neither of these times work, you must make prior arrangements with the lab TAs.

4. **Attendance:** Lab attendance is mandatory and will be graded separately from the pre-lab and post-lab report submissions.
   Note: You are required to be check-off as having completed a lab prior to submitting the write-up for that particular lab.

5. **Point Rubric:** Your lab submissions will be graded based on the rubric below. The lab instructor will reserve the right to deviate slightly from the rubric based on the difficulty of individual lab assignments.
   Note: Please note that all lab assignments have equal weight. If a lab assignment has a pre-lab, the pre-lab will count for 30% of the overall lab assignment grade, while the post-lab will account for 70%. For lab assignments without a pre-lab, the post-lab will count for 100% of the overall assignment grade.

   - Correct Format [20]
   - Content (i.e. items requested in lab, complete design procedure, etc.) [30]
   - Demos [25]
   - Questions [20]
   - Presentation (i.e. neatness and level of effort) [5]

6. **An Important Note on Plagiarism** Plagiarism is defined as taking someone else's work, words, or ideas and using them as one's own without citing the source. Be very careful and abstain from copying someone else's work, even if it is from previous semesters. This does not mean that you may not compare your result as this is actually encouraged. You may explain your methods to other students, but do **NOT** let them copy your work. The consequences of such actions are quite severe!!

General Policies and Procedures

In addition to the guidelines set forth above, you must adhere to the policies below.

1. Food, Drink, and Tobacco products are **NOT** allowed in the lab.

2. You are guaranteed a workstation in the lab during the allotted time. If, however, you need to work on lab outside of that period, you may do so if the lab is open, or you may request that the lab be opened for you when the instrumentation room is open (8 am - 9 pm Monday-Friday and 9 am -5 pm Saturday). Note that if another lab period is in session, you must request permission to work on your lab from the TA of that section.

3. Report all lab equipment failures to the TA or the folks in the instrument room. Please be careful with all equipment in the lab as many of the units are very costly to replace!

4. You will be notified of any amendments to the aforementioned policies.