EE445M/EE380L.12 Laboratory Policies
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1. Grading Policies

Groups will consist of exactly two students. Lab partners have separate checkout grades[+], but share the preparation[*], report[*], software quality*, and late penalty grades[*]. For each lab assignment, there are a number of preparation tasks that you must complete before the laboratory period. The following activities occur in this order at the beginning of lab, you turn in your preparation, the TA will give a short lab lecture, the TA will check your preparation, and if possible, the TA will return the preparation to you.

Responsibility	grade
Preparation	20[*]
Preparation includes a demonstration of your software design, which is due at the start of lab. You should type any software prototypes into the computer and compile them with no syntax errors. Preparation does not usually involve running and debugging, but it should not be handwritten. Preparation may also include hardware connections. You are responsible for the procurement of all necessary parts before lab starts. As part of the preparation, hardware circuits but not necessarily built or debugged.	
Software Quality (see the section on software style guidelines later on in the lab manual)	10[*]
Documentation, comments, choice of good variable and function names	
Proper style, organization, modular structure, ease of understanding	
Report (10) Final hardware circuit connections (which pins used for which function)	20[*]
(10) Results printout, performance/data graphs (handwritten drawings are OK)	
Checkout, demonstration to TA	
Performance, correctness of the program function	25[*]
Interface to the human operator, menus, error messages	
Oral understanding of engineering tradeoffs	25[+]
Penalty 85% multiplier if checkout on Friday by appointment with TA,	
60% multiplier if checkout during first lab period the following week	
Late Report	-5/day[*]
Total	100[+]

If a TA other than yours checks out your lab, please email your TA specifying the time, date, lab number and the other TA's name. Also, please follow up with both TAs to make sure you got credit for the lab. Please include the following information at the beginning of each of your software files:

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1) Students' names
2) TA name
3) Date of last change
4) Lab assignment number
5) Purpose of the software module
6) Hardware configuration
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2. SAFETY REGULATIONS:

IN CASE OF EMERGENCY DIAL 911

Since there will be times when students will work other than the regularly scheduled lab sections, it is necessary that certain regulations be observed for the convenience and safety of all. Since the possibility of lethal shock exists in those circuits utilizing low potentials, the following should always be observed:

1. Working alone in a lab room is not permitted.
2. Working after regular hours without written permission is not permitted.
3. Work benches must be clear of all coats, knapsacks and extraneous materials. Coat racks are desired for those desiring this convenience. Otherwise all materials must be stored under the work area or out of the way.
4. Shoes must be worn in the lab at all times. Shoes represent a significant protection against electrical shock.
5. Smoking, food and beverages (e.g., coffee) are not permitted anywhere in the lab area.
6. Please wash your hands after soldering. If you are pregnant or think you might be pregnant, please do not solder at all.

IN CASE OF INJURY OR SHOCK:

Turn off power, do not move the injured. Start artificial respiration if breathing has stopped. Have someone else call 911 if CPR is needed.

IN CASE OF FIRE:
Turn off the power, call 911, fight fire with available extinguisher, have someone clear the building.

3. LAB PROCEDURES AND POLICIES

FIRST FULL WEEK OF CLASSES: Go to the regularly scheduled lab during the first full week of classes. During this time, The TA will be introduce you to the lab equipment. Your TA will also instruct you on lab procedures and grading policy. Note that attending a lab session for which you are not registered is not permitted.

LAB PARTNERS: Every student is required to have a lab partner. You will perform all labs with a partner. Students choose their own lab partners during the first week.

LAB EQUIPMENT USAGE: Lab hours are posted in the laboratory. There are no sign-up sheets, but cooperation is expected. If you start debugging on a station, you may stay as long as you like, with three exceptions:

You must leave when the ECE labs are closed for the day;
You must leave during the first half-hour of the other regularly scheduled lab periods;
You may not leave the station unattended for more than 15 minutes.

If you would like to use a station that has been left unattended for more than 15 minutes:

1) Carefully disconnect the hardware and eject any external disks;
2) Do not save any software files;
3) Return all materials (hardware, disks, paper) to the front desk;
4) Leave a note on the station with your name and time;
5) Write a note to the TA describing exact times listing what you turned in.

LAB LECTURE: The purpose of the lab lecture is to provide necessary information to complete the lab. The scope of the lectures will be material relevant to the lab. The TA gives a lecture during the first 15 minutes of each lab.

LAB PREPARATION: Lab preparation must be performed prior to the regularly scheduled lab period. All software must be written, edited and designed before coming to the lab. There is not a lot of hardware circuit design in the class. However, it is important to specify exactly what circuits are connected to which pins. In this way, the lab period may be spent in debugging your system with the TA's help. The preparation is due at the start of the lab. Preparation includes gathering all the physical components required to perform the lab.

LAB REPORT: You will create each lab report separately. There is a **Deliverables** section that details the specific components required for that lab report. Lab report typically includes the following items:

A) Objectives (1/2 page maximum)
B) Hardware Configuration. Detailed hardware connections to the microcontroller port pins.
C) Software Design (no software printout in the report)
    Draw figures illustrating the major data structures used,
    A call-graph illustrating the modularity of the software components
    Draw data-flow graph showing how data is processed
D) Measurement Data
    Whenever appropriate, use the printer to get a hardcopy listing of your results. Include graphs and figures as specified in the assignment.
E) Analysis and Discussion (1 page maximum)

CHECKOUT: Please consult with your TA on exactly how labs will be checked and how you will turn in materials.

4. Legal Stuff

The opinions expressed in these notes do not necessarily reflect the opinions of the University, its management or its big-time financial donors. Also, there shall be no bologna, Bevis, mustard, chewing the cables, free lunch, sob stories, running & screaming, whining, hitting, spitting, kicking, biting, or tag backs. Quit it or we're telling. (Enjoy the course.)