EECE208 ELECTRICAL ENGINEERING LAB

Dr. Charles Kim

1. General Policy

This course is designed to give sophomores in Electrical Engineering and students in other disciplines an opportunity to organize and setup experiments, observe responses and report the results. Emphasis is placed on writing thorough reports, learning the proper use of basic electrical measurement instruments and reinforcing basic networks and electronic concepts. Experiments involve: Kirchhoff's laws, Thevenin's equivalent, Principle of Superposition, Oscilloscope basics, average and effective values, filters and frequency response, diode circuits, operational amplifiers and digital circuits. During the first half hour, the instructor explains the theory behind the experiment and gives some important pointers about the lab. **Therefore, it is important for the students to come to the lab on time.**

- 1. Students are expected to be present in the lab on time and stay in the lab until the experiment is completed. The penalty for coming late and/or leaving the lab before completion will be determined by each Instructor.
- 2. Students are expected to complete a given lab within the assigned three hour period.
- 3. The **lab report** (of previous lab performed) and the **pre-lab** (of lab to be performed) must be submitted at the designated areas **at the beginning of each lab period**. Late Pre-Labs will not be accepted.
- 4. The penalty for late submission of the lab reports will be at the discretion of TA. The data sheet signed by the TA must be included in the lab report.
- 5. A student may miss one lab during a semester with a valid excuse, and can complete it at the end of the semester during the make-up period. Students who miss two or more labs will get an automatic ''F'' for this course.

2. Lab Safety Policy

- 1. Use only three wire power cords for proper grounding.
- 2. Always shut off power before handling conductors.
- 3. Always inspect power cords for damage before using.

4. Do not become a low resistance path to ground. Wear dry shoes and avoid contact with live conductors. Do not work with electricity when your hands are wet.

5. Connect the instruments to the AC supply last.

6. When wiring-up a circuit, first turn off all power. After carefully checking the wiring, turn on the power supply. When dismantling a circuit, first turn off all power supplies, then remove the wiring. This protects the users from electric shocks, and prevents damage to the equipment.

7. Defective equipment should be brought to the attention of the instructor or laboratory staff so that repairs can be made. A piece of defective equipment can pose a safety risk or result in lost time or inaccurate measurements.

8. Always follow safety procedures outlined for operation of the various special equipment (drill press, band-saw, grinder, soldering iron, etc). Under no conditions should anyone use a drill-press, band-saw or grinder without proper eye protection. If safety goggles are not immediately available, request them from the laboratory technicians. Failure to follow proper procedures can result hi personal injury.

9. University rules prohibit smoking or eating in the laboratory.

10. Each person is responsible for the proper care of the laboratory equipment which is in his or her possession. Note that the handling of the laboratory equipment can be considered in your final grade under instructor's discretion as shown by the grading system on the next page.

NOTE: Safety procedures must be observed whenever one is working with electrically operated equipment. These safety regulations must be strictly observed to prevent personal injury and/or damage to university property. Anyone violating these rules risks disciplinary action.