EEL 3300 L
ELECTRONICS LABORATORY

Prerequisites: EEL 3111

Corequisite: EEL 3300 (Note: this course must be dropped if EEL 3300 is dropped)

Laboratory Manual: Lab Manual, Microelectronic Circuits and Devices

Course Outline: Lab Manual Experiments (10 weeks)
Design Laboratory (2 weeks)
Laboratory Practical (Last week)

Grading Policy: Laboratory Reports 35%
Laboratory Notebook 15%
Design Lab & Formal Report 20%
Prelabs 10%
Laboratory Practical 20%

Grading scale: A: >90%, B: 80-89%, C: 65-79%, D: 50-64%, F: <49%
These breakpoints may be lowered slightly depending on overall class performance.

Class Policy:
• A laboratory partner will be assigned to you at the beginning of the semester. There will be no groups larger than two students.
• Prelabs are expected to be completed prior to each lab.
• Each student will bring a bound (i.e. not spiral) laboratory book to the laboratory. All work should be recorded in the notebook as outlined in the handout, “Laboratory Policies and Procedures.”
• A laboratory report will be required for each experiment unless otherwise specified by the instructor. Report format should adhere to the guidelines set forth in the handout “Laboratory Policies and Procedures.”
• No late work will be accepted.

Course Objectives: At the conclusion of this course, you should be able to
• Analyze the current-voltage relationship of nonlinear elements including p-n junction diodes, MOSFET, and BJT.
• Study the behavior of different types of dc power supply circuits.
• Evaluate transfer characteristics of different amplifiers including voltage inverters and voltage followers under different bias conditions.
• Determine the frequency response of simple amplifiers with capacitors.
• Design, construct, and evaluate a practical electronic circuit by using the knowledge students have gained in their circuit theory and electronics courses.