

SYLLABUS FOR ECE 109L - LINEAR RESISTOR CIRCUIT LAB

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OFFICE HOURS Announced in class

COURSE DESCRIPTION

ECE 109L is a lab on the basic properties of linear resistor circuits. It contains labs on current, voltage, power, energy, reference directions, I-V characteristics, node analysis, equivalent circuits, transfer functions, superposition and Thevenin as well as linear resistor circuits with time-varying inputs. The writing of good, clear, easy to follow lab reports is stressed.

PREREQUISITE OR CONCURRENT ECE 109

TEXT

The ECE 109/109L Lab Manual by Felzer and Graham available is in the bookstore. The labs we will be doing are on my homepage.

LAB MATERIALS

Every student is required to purchase and bring to lab each week a small screwdriver, assorted resistors and 10 clip leads. You will also need a good calculator. Proto boards are highly encouraged but not required. Free resistors and such are often available by the stockroom on the 5th floor.

PRELABS

Prelabs are due at the beginning of the lab period.

LAB WORK

You are encouraged to discuss the labs with your partner and others in the lab as well as the instructor. But everyone is required to build their own circuits and take their own measurements.

LAB REPORTS

Lab reports are due at the beginning of the next lab period. Organization and neatness count a lot. In particular, be sure to

- Draw all circuits with pertinent voltage and current reference directions
- Use headings as illustrated in the sample lab writeup
- Clearly differentiate between measured and calculated results
- Specify all units
- Label all graphs and tables
- Write conclusions for all tables comparing measured and calculated results

NOTEBOOKS

Keep all lab handouts and returned lab reports in an accopress binder (Senior Project Binder). These notebooks will be due at the end of the quarter and will be graded on organization, neatness, completeness and your correcting of returned lab reports (in red ink). These notebooks must contain the following items in the following order with dividers as indicated -

- Title Page with your name
- Syllabus
- Divider
- Your class notes
- Divider
- List of Experiments
- Printed copies of Labs handed out in class
- Divider
- Returned Lab Reports with dividers between sections indicated in the List of Labs

GRADING

Points will be given for work done as follows:

- Prelabs - 5 points/week
- Lab Reports - 5 points each

	Don't See Instructor	See Instructor
Good Lab Reports	Good Grades	Good Grades
Poor Lab Reports	Low Grades	Hope

- Demos - 10 points each
- Lab Notebook - 25 points
- Lab Final - 100 points

DROPPING

Note that Engineering students cannot drop classes after the third week unless there are documented extenuating circumstances. See the College of Engineering policy.