

### EE321 Lab — Introduction

The goal of this lab course is to learn to build, test and design analog circuits designed with the basic circuit elements including op-amps, diodes and transistors.

Keep all lab work in a large (9 1/2 X 12) quad-rule bound notebook. The notebook should be a complete record of what you did in the lab. It should show what circuit you actually built and what test were done.

Leave room for a table of contents at the beginning and record the page numbers of each lab. Number and date pages. Record as you work. For each part of the lab following this general format as appropriate.

- Begin with a few words stating the problem and what is required.
- Then there should be a schematic or block diagram.
- Then table of data, or sketch or copy of the oscilloscope trace.
- Plot the results if required or appropriate.
- Put proper scales and units on plots and oscilloscope traces.
- Record information on what was done.
- Then answer any questions.
- Finally write a short conclusion.

Cross out bad work — **DO NOT ERASE.**

Do not cut up the lab handout and use it for part of the write up. Tape the handout in the lab book for reference.

You may use both sides of the lab book pages.

There should be enough information so that an engineer not familiar with our lab could exactly reproduce your work. The lab notebook should be neat but not formal. Be sure to include units with all data and all plots. Plots and scope printouts should have carefully labeled scales drawn on both axes. Tape the lab handouts in your notebook.

When asked to compare the results of a measurement with theory, I expect you to do and show the necessary calculations in the lab book as you proceed. Bring your calculator.

The lab book should be completed during the lab period and handed in before leaving. If you wish, put data, schematics, and final work on the right side, using the left side for scratch work.

The labs are long and you may find yourself there late unless you do some preparation before coming. Read the lab and think about it. It may be helpful to put initial information in your lab book before the lab period.