

ENEE 417 - Fall 2002
Week #1
Laboratory and Equipment Familiarization

During this week you should get organized for the following weeks of design experiments.

1. Safety considerations are the first priority:
Determine where the Department has located fire extinguishers, first aid kits and telephones that you can use in the case of an emergency. Alert us (at any time) to any unsafe conditions perceived.
2. Obtain a breadboard from the Department Laboratory Technicians for use throughout the semester.
3. Become familiar with the generic laboratory equipment, oscilloscopes, signal generators, printers, power supplies, data sheets, parts, etc.. For example, display signals on the oscilloscope and obtain a printout.
4. Become familiar with a) the Tektronix 577-177-D1 curve tracer and b) curve tracing in PSpice (or Spice). First use just a resistor, then a diode, and then BJT and MOS transistors of any type available in the Laboratory.
5. Begin a search for your own circuit from a suitable journal article.
6. Obtain the MAGIC layout tutorials and begin to learn MAGIC for VLSI layout.
You can find these at http://www.ee.umd.edu/newcomb/vlsi/MAGIC_tut.html
A self-contained set of steps for using can be found at http://glue.umd.edu/~jwils/magic_tut1.html
Some other samples can be found at http://www.ee.umd.edu/newcomb/VLSI_circuits.htm and
[Http://www.ee.umd.edu/newcomb/VLSI_devices.htm](http://www.ee.umd.edu/newcomb/VLSI_devices.htm)