

PHY 440 Electronics Laboratory

The electronics laboratory exercises allow you to get first-hand experience with electronics instrumentation that is used in experimental physics today. Your lab time will be busy but should also be fun. There are a few things you can do that will help you succeed in lab, preparing for the lab ahead of time and staying focused during the lab. Here are a few helpful practices and some policies that you should be aware of in order to perform as best you can.

- Be sure to read all the procedures ahead of time. Sometimes there are derivations that you can do before you come to lab. Write these out neatly before you come to lab and bring them with you to paste into your notebook. Reading ahead also gives you time to brush up on any of the material covered in the lab.
- Give enough time to the lectures, homework, and lab. The questions asked in the lab often require you to have an understanding of electronics that is deeper than just being able to create a working circuit, more than writing down voltages or rise times.
- Be sure to read through the lab procedures carefully while you are actually in the lab. Sometimes questions you need to answer may be posed in the middle of a paragraph describing the procedure.
- Use a pen rather than pencil. If you make a mistake, simply draw a line through it.
- Any time you are asked to calculate a value or make a theoretical prediction, write down the equation you used and show your work so that you can receive partial credit. If you make a mistake and need more room to write, finish on a different page and make a note which page the rest of your calculation is on.
- Be sure to clearly distinguish theoretical values from experimental ones.
- Write neatly. Your TA cannot give you credit for something he/she cannot read.
- The TA must check every circuit and sign off on it before you power it up or take it apart.
- You have 2 hours and 50 minutes for the lab. In that time you need to complete the lab, turn in your notebook and clean up your work station. There is a 2 point deduction for leaving a mess.