EGR 220 One Page Lab Memo Guidelines

The purpose of the lab memo is to provide a means for you to reflect upon what you are learning in the course and through the lab experiments. In general, for each lab you need to:

1. Be clear on what the objective of the lab is – why are you performing these experiments?
2. **Summarize** what you did guided by the questions posed in the lab handout
3. **Include one statement** demonstrating your growing understanding of electricity-and-matter that **goes beyond** what is requested directly in the lab handout, as a means to demonstrate you are processing and reflecting on the course material.
   - Make a statement on your growing knowledge of how energy interacts with matter
   - Comment on a new insight about a circuits law
   - Comment on insights gained from your hands-on work versus textbook problems
   - Write a well-posed question about the subject area (e.g. We observed _____ in the lab experiment, and wonder how this phenomenon is consistent with _____ circuits law).
   - Comment on anything else that relates to the lab and course material

**While doing each experiment**

- Record observations and results along the way – those things asked for in the lab as well as other results and questions you encounter along the way.
- Think about what you *expect* for results and what you *expect to learn* before doing each experiment (this will help you to identify unexpected results along the way).
- Sketch relevant diagrams for each experiment – circuits and results (waveforms…)
- Make notes on things you are learning, and that you should be learning, to review later.
  → These notes will be useful to you as we move through the semester.

**Note for figures, tables and citations**

Your memos will often include figures, drawings, tables and sometimes, references – use the format you learned in EGR 110. (You must *always* tell a reader why she wants to look at your figure or table, what information it contains and why this is interesting or relevant.)

**What to hand in:**

*Your memo must be a stand-alone document* that would make sense to any reader who happened to read it. You should hand in **no more than one 1-page memo for each lab team** (unless you need many, many figures). Pages beyond one page will not, in general, be read or graded. Your memo will have the following elements.

- Informative title, all lab partner(s) name(s) (note that “Lab 1” is *not* an informative title).
- Objective: A concise statement of the purpose of the experiments *in your own words*.
- Results
  - Including well labeled figure or table with data, as needed.
  - Including content from the pre-lab *as needed* in order to present a complete picture of the lab activities and results. Do NOT simply attach the pre-lab.
  - Equations will typically be on their own line (not in-line with text).
  - Concise discussion relating to answers to questions in the lab hand-out.
- One concise and elegant statement of what you *learned* (see #3 at the top of this page)
  - **Note that for full credit, this statement must include more than what is asked for directly in the lab handout. You must demonstrate some independent thinking and learning.**