EGR 220 One Page Lab Memo Guidelines – also see class slides

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.**