ECE2140 Lab Report Format

Scenario: You have just finished an experiment, and you are writing a short (less than two pages of text, single-spaced), but dense, report to your boss to update him on what you have done. The report should contain enough detail for him to be able to discuss the experiment with other members of your design team and with his superiors. You should assume that your boss is at the same technical level as yourself but has no prior knowledge of the experiment (think of a classmate who has not yet performed the lab).

This report should be as short as possible, but no shorter. Your boss is a busy person and will appreciate you taking the time to condense what you have to say. However, if you omit information that is necessary for him to understand what you have done, then you have wasted his time, and he may be displeased.

Recommended Length: 2 pages

ORGANIZATION OF THE REPORT:

[Student's Name]
[Partner's Name]
ECE2140 – [Section #]
GTA: [GTA's name]
[Lab Due Date]

Experiment [#] – [Title of the experiment]

The first paragraph should contain the objective(s) of the experiment. You should also include enough detail about the procedure that someone at your technical level would understand what the experiment involved. Those details may include significant steps that you performed, the equipment that you used, and/or circuit diagrams.

The second paragraph should contain your results, as well as a description of your results. This paragraph MUST contain words. Pasting in a table without discussing the contents of that table is not acceptable. All tables, figures, circuit diagrams, etc. should be labeled (for example, Figure 1: Voltage vs. Time of R1) and then referenced in the text (for example, Figure 1 shows …).

[Question copied from the lab manual]
[Answer to that question]

The third paragraph should contain the analysis of the experiment. Explain to your boss what the results show, your interpretation of the results, and/or why the results are significant. If the results are unexpected, describe what you had expected to obtain, quantify the error, and then attempt to explain why your results are different.

The lab manual may contain questions and sections where you were asked to explain or discuss something. To make things easier on yourself and the person grading the lab, copy the question word-for-word into the report and then below the question provide the answer (This is not what you would you would do if writing a report for your boss). Place the individual questions and answers in the section that make the most sense. For example, questions about measurements should be placed near the results paragraph, while questions involving analysis should be placed near the analysis paragraph.

[Question copied from the lab manual]
[Answer to that question]

The final paragraph should contain your conclusions. Describe what the lab was attempting to teach you and your justification for now believing that piece of information to be true.

References:
[1] GWE SEAS ECE Department, "Laboratory Report Format," The ECE 20 Course Website, Spring 2011. http://www.seas.gwu.edu/~ece20/Spring2011/labs/index.html **(NOTE 1: You must ALWAYS provide citations, if you have used works written by others. This is true even if you are writing an informal internal report.)**