

# Lab Report Guidelines

## EE 341 Spring 2013

As you can imagine, it helps to be able to present your work effectively. You may be the best engineer out there but failure to communicate that information can mean the difference between a promotion and being overlooked completely. In short, it pays to write a good report – especially for this class where you don't have to demo. I understand that it appears to be an exercise in futility or character building but in fact it helps make everyone's life better.

### General Advice:

- *Answer the questions!* Be sure you provide what the lab assignment asks for, no more and no less.
- *Be concise.* Use as many words as needed but there is no need to discuss how the lab fits into the scheme of the universe.
- *Use evidence.* Provide MATLAB graphs and code to support your claims and observations. Again, since there is no demo, simply saying you did the task given without any proof is no good.
- *Make your graphs readable.* Any information given in a graph must be readable. This includes axis labels, titles, legends, and annotations. Please check with your TA if you don't know how to specify these in MATLAB plots.
- *Convert your report to PDF format.* This makes it safe and professional. All EE lab computers can do this for you. If your file size is huge (on the order of megabytes), it is probably because of your figures. You can use the "save as..." feature in MATLAB to export your figures to various efficient graphics formats.

Please include the following components in your lab report.

### Title Page:

Name, student ID number, date, and lab title.

### Introduction:

Introduce your lab report (not the lab itself):

- What is the purpose of the lab?
- What are your main results? Break it up by sections, as in, "Section 2 shows how moving the poles outside of the unit circle results in ..." Remember to be concise for the introduction.
- Do not include equations or figures in the introduction.

### Results and Discussion:

- Paraphrased what the lab asked you to do, how you chose to implement it (in words and equations), and show the results (include all relevant figures).
- Discuss your results: whether it answers the question asked, it turned out as you expected, and explain important behavior of your results (for example, oscillation or unstable growth).

*Conclusions:*

- Restate the important results (somewhat close to what you said in the introduction).
- Comment on the lab itself and how you did, such as difficulties encountered and ambiguities.
- Other comments can be included here as well.

*Attached code:*

Print your MATLAB code as an appendix with each lab. You may also be asked to submit your code electronically, in addition to the printout with your report hard copy.