

ELEN 50 Lab Report Guidelines

Lab reports are required for each lab unless otherwise announced!

Report Content:

The basic requirement of a lab report is that it must stand on its own. It must contain sufficient information so that you or someone else could re-create your lab work **without reference to the original lab procedure.**

Report Format:

In the following examples, items in italics should be replaced by the student. **Number your report sections using the same numbering sequence of the lab handout.**

- 1) Heading, listing your name(s), the course number and lab section, and the date of the report. Ex: *Your Names*
ELEN 50L – Lab Section
MM/DD/YYYY
- 2) Lab title, including the lab number. (Ex: Lab X: *Lab Title*)

Name 1
Name 2

ELEN 50L – Section Number
MM/DD/YYYY

Lab #: Laboratory Name

Figure 1. Example of header for laboratory reports

- 3) Objectives, can be bullet points but they have to be written in your own words
- 4) Procedures, briefly describing the process of the lab. Include:
 - a) Circuit schematics for each circuit you simulate or build.
 - b) Screenshots of all plots/waveforms when asked for in the lab procedure of if you consider important for the report to stand by its own.
 - i) Set the axis minimum, maximum, and tick mark values to make report-quality graphs. **Make sure that your waveforms are viewable!** With a dark background, it is recommended to use light colored waveforms, and vice versa.
 - ii) Label all your figures with a number and title.
Reference the figure from the report text using the figure number. (Ex: Figure X)
 - iii) Any used Tables must also be labelled with numbers and Titles. Place table labels above the corresponding table.
 - c) Responses to all of the questions posed in the handout. **Most low grades on lab reports can be traced to not answering the questions.**
- 5) Conclusion, summarizing what was learned and further analysis, if necessary. Just a few lines are needed but they should provide a summary of what you learned.

Please note:

- 1) Lab reports must be submitted before the start of the following week's lab session. **Late reports will not be accepted.**
- 2) The same grade will be given to all people in the group, regardless of individual contributions to the report. Each member must proofread the final report before submission.
- 3) Grading will become stricter as the term progresses. Errors identified in earlier reports will have more points taken off if they are repeated in later reports.
- 4) Please make sure that your screenshots are presented appropriately. The following figures are examples of bad and good screenshots.

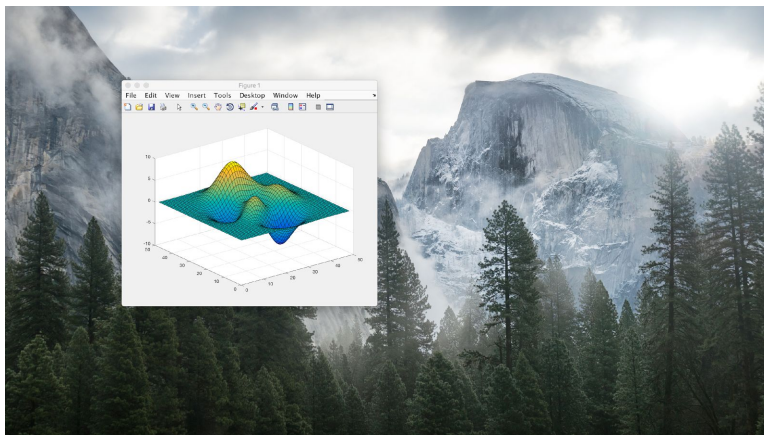


Figure 2. A bad screen shot. In the figure above, the capture unnecessarily covers the entire desktop screen. This capture does not look neat and it is difficult to see measurement information of the waveforms.

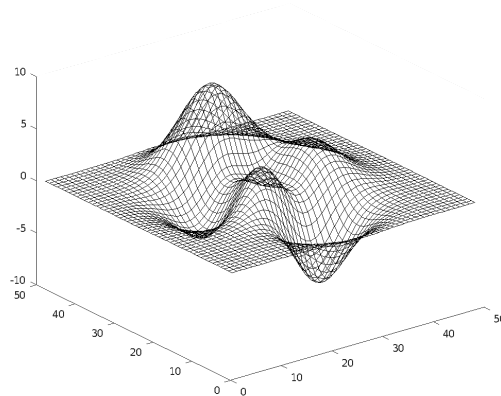


Figure 3. The figure above is an example of a good screenshot. The screen capture is presented neatly and useful information.

The following is an example of structure for the lab report. **You don't need to follow it if don't like it;** You can come up with a different structure as long as you meet the guidelines.

Name 1
Name 2

ELEN 50L – Section Number
MM/DD/YYYY

Lab #: Laboratory Name

I. Objectives

- Objective 1. Written in your own words
- Objective 2. Written in your own words
- ...

II. Laboratory Procedure

Part 1: Name of part

Summary of part 1 of the laboratory

Section 1: Name of Section

Briefly describing the process of the section 1. Refer to item 4 of the “**ELEN 50 Lab Report Guidelines**”

Section 2: Name of Section

Briefly describing the process of the section 2. Refer to item 4 of the “**ELEN 50 Lab Report Guidelines**”

Part 2: Name of part

Summary of part 2 of the laboratory

Section 1: Name of Section

Briefly describing the process of the section 1. Refer to item 4 of the “**ELEN 50 Lab Report Guidelines**”

Section 2: Name of Section

Briefly describing the process of the section 2. Refer to item 4 of the “**ELEN 50 Lab Report Guidelines**”

III. Observation and Analysis

Comment your observation from the experiments, what are your finding?? does they make sense?

What were you expecting? How the simulations compare to the physical built? How did you find these values? not only place figures, explain them. Equations maybe?

IV. Questions

Responses to the questions posed in the handout if any

V. Conclusions

Conclusion, summarizing what was learned and further analysis, if necessary. Just a few lines are needed but they should provide a summary of what you learned.