

ESE 112 Lab Report Guidelines

Important: All lab reports must be done individually.

Lab Report Structure

- **Title page**
- **Introduction**
 - One paragraph to summarize the aim and procedure of the lab
 - Not a copy of the lab manual bullet list
- **Procedure & Results**
 - Give details of each part of the procedure *as necessary*; don't reproduce the lab instructions but keep it concise.
 - Give results of experimental data. Use diagrams, charts, graphs, flow chart (for programs) where you think it will help you present and or discuss your data better. **Note:** If explaining your algorithm, do not put the whole program code in the document. Use code fragments to explain your work.
- **Discussion Questions**
 - Number the questions and include all information for the answers within that section. (The questions will be graded by what we can read here. You can however reference figured previously in the lab.)
- **Conclusion**
 - Generalize from the results obtained.
 - Discuss the reliability of the results.
 - Discuss anomalous results and propose interpretations or further testing.

Miscellaneous

Cover Page

- Include a cover page with the experiment's title, your name, date, course number, Section Number (and day), and Professor's name.

Formatting

- Reports should be 3-5 pages of text, 1.5 spaced. Appropriate tables, illustrations, and graphs placed in line with the rest of the report but do not count towards the page limit. Number your pages!
- Use 12 point Times New Roman font for the body of the report. Appropriate margins are 1 inch on all sides.

Reader

- Keep your reader in mind always.
- The reader should understand your report (purpose of the lab, process and results, and conclusions) in one reading without having to go back and forth within your paper, and without access to the list of questions you were given.

Graphics (tables, graph, diagrams, etc.)

- All graphics must be accompanied by labels. (Ex: Figure 1: Modified Mouse circuit)
- Any graphic should be explicitly referred to in the text. If you don't talk about it, don't include it; if you include it, talk about it.
- Make sure that all graphs are clear and have headings. Label axes, columns and data sets.
- If any calculations are made to obtain results in a table, show the formulas used and sample calculations if possible.
- If all the entries in a graph or table use the same units, don't repeat the unit of measurement with each entry. State the units of measurement in the legend of a graph, or in the heading of a table.
- Be sure to state which values in a graph are measured and which are computed.
- Define any variables used.

Tenses

- Use past tense to describe your experiment (“the beaker *was placed*...”) and present tense for permanent truths (“the speed of light *is* approximately...”).
- Generally use the passive voice (especially for the procedure section). However, it's fine to use an active voice when discussing results and when the passive voice becomes too awkward/wordy.

References

- Cite your sources! Number your citations using superscripts, brackets, or parentheses.
- A reference must provide enough details so that the reader can find it if he or she wants to check sources or find additional information.