

How Project Reports should be prepared and handled

Projects are not just a set of homework problems where you are just required to solve a few ODEs and provide a yes/no answer on the questions being posed to you. Thought and additional work must be put in the analysis and completion of the report. These intermediate steps should be presented in the report in addition to the explicit items that are itemized in the numbered sections of the projects. By reading your report one must be able to reproduce the results with all their details. This is similar to a laboratory experiment in the sense that reports are expected to be self-contained with a clear delineation of the methodology used.

Your report should be presented as if it were a scientific paper, with detailed explanation of the steps taken in the analysis and a discussion that shows what was learned from the analysis. This does not mean merely re-typing the goal that is presented on the project description.

You may need some assistance in doing the project – you're always welcome to ask questions!

General Project Presentation Guidelines

The most important thing to do on your projects is to answer every question explicitly asked. Note that questions may be in the middle of paragraphs — these explicit questions should still be answered!

Be sure to include all calculations and graphs explicitly asked for. More may be included, but they should be referred to in the discussion. If you do not refer to a calculation or graph in your discussion, you should not include it. Thus you should comment on all graphs and calculations that are asked for in the project.

Graphs included (if any) should be labeled. Labeling graphs by hand with neat printing is acceptable. All graphs must have titles, and the axes must be labeled. If a graph includes multiple lines, all lines should be individually labeled. Multiple lines may be labeled by writing on the graph and drawing an arrow to the appropriate line or denoted with different colors.

Sections required on the project:

Introduction: It must include a statement about the purpose/goal of the project. The intro should be fairly general and no more than a few sentences long.

Analysis and discussion: Clearly, this section is the bulk of the report. Here you must comment on each section of the lab, answer all questions, and provide analysis of your results. Obtaining accurate results is important, but commenting on your calculations and graphs and discussing your results is even more important, because it demonstrates your understanding of the project. Finally, if you obtain any unexpected results in your lab, comment on them.

Conclusion: It should summarize the most important overall results obtained in the project. You should comment on similarities and differences you observed in different sections of the project. It does not need to be more than a short paragraph.

General formatting:

The project must be typed. Mathematical formulas and labels on graphs may be neatly written by hand.

The projects should have a clear presentation. It is usually best to simply follow the organization of the project questions and analyze your results for each section in order.

No more than 5-6 pages are expected, but do not expand your project to meet a 5-page “goal.” If you feel it necessary to exceed that length, check with me.

Other suggestions:

Double space between paragraphs. Section headings (Intro, Analysis, Conclusion). A sufficiently large font (i.e. 12 pt).

You are encouraged to export any graphs into Word and integrate them into your analysis section. If you do this, make sure that they are still large enough to show all relevant data. It is acceptable, however, to have all your graphs attached at the end.