

Guidelines for Laboratory Reports
University of Southern Maine Engineering Department
January 2004

Title Page and Abstract

Title Page

The title page should include the title of the laboratory exercise, the course number, the author(s) of the lab report and any other participants in the lab who did not author the report, the date the laboratory was performed and the date the report is due.

Abstract

The summary or abstract is a condensation of the entire report that captures its essence and totality. It is written last and is a coherent synthesis of the important elements of the report.

Body of the Report

Introduction

The introduction provides background needed to put the objectives and results in proper perspective. Examples of what might be included are relevant theory, preliminary work, or the statement of a theorem to be confirmed. The purpose of the laboratory is stated. Specific objectives are listed.

Experimental Setup

This section should enable the reader to visualize the experimental setup. Provide neat, correct and clear schematic drawings showing all interconnections and interrelationships. Include a short textual description. List all equipment used. Include photographs if such help understanding.

Procedure

Describe the procedure used to carry out the laboratory. Sufficient information should be provided to allow the reader to repeat the laboratory. Assume the reader was not present and is not familiar with the experiment.

Results

Present results in the forms of observations, numbers, tables, graphs or any other way that conveys the information clearly and concisely. Describe the results in the text. Don't rely on the reader to extract the important information from the tables and plots. The description should be consistent with and observable in the results presented.

Discussion of Results

This section is devoted to your interpretation of the results. The information is examined and explained. If the results are not what were expected, try to explain why. Be open to the possibilities that expectations were faulty or that mistakes were made in obtaining the data. Explicitly state conclusions based on the results. If there are flaws or limitations,

discuss them and indicate what might be done about them, e.g. improve the experimental procedure or do additional experiments.

References and Appendix

References

List as references all the published sources that provided information used in the report. Use a standard bibliographic format. Each source must be referred to at the appropriate place(s) in the report.

The appendix includes information which, if included in the main body of the report, would distract the reader from the main points of the report. Such materials include things such as original data sheets, derivations, lengthy calculations, and computer printouts.