

Title Page

Title:

Write your title in the form of a phrase (e.g., "Hooke's Law Experiment"), not as a full sentence (e.g., "How does the extension of a string relate to the force applied to it?")

Format:

Follow your citation style guide for formatting the cover/title page of your report.

Abstract

Purpose and Objective:

What was the main objective of the experiment and what did you hope to learn from completing the lab? [1-2 sentences]

Methods:

What primary methods and tools did you use to complete the lab? [1-2 sentences]

Results:

What were the primary results? What findings (trends, comparisons, etc.) are most important to note? [1-2 sentences]

Significance:

What is important to understand about your findings? How do the results help you to better understand the concepts involved in the lab? [1-2 sentences]

Introduction

Background:

Discuss the main concepts being studied in the lab. Include any research that helps you to discuss the concepts, the problem being studied, and current theories that address the problem

Objective and Purpose:

State what is being tested and analyzed in the lab. In addition to the objectives, explain what other goals you have for the lab. What do you want to understand or learn from completing the lab?

Hypothesis:

Given what you know about the concepts and theories related to the lab, what do you expect to happen in the experiment?

Reasons for the Hypothesis:

Why do you think this outcome (the hypothesis) is likely?

Methods and Materials

Methods and Materials:

The methods and materials section should be a chronological account, in paragraph form, of how you conducted the lab. For each stage of the experiment, describe both the methods and the instruments/materials you used. Describe what you did in the experiment, even if these were different from the lab manual.

Results

First Paragraph:

Summarize your overall findings.

Subsequent Paragraphs:

Present each finding separately. Introduce a corresponding visual and explain to readers what is important to notice (e.g., "Note in column two. . ."). If needed, show a sample calculation used for the data.

Tables and Figures:

Include only one visual to represent each finding. Review Section D for more information about how to prepare your figures and tables. Make sure you correctly label your visuals with a number, title, and any necessary footnotes.

Discussion

First Paragraph:

Summarize your overall findings

Explain your results:

Why did you get the results you did? Are there any contradictory explanations for your results? Can you resolve this contradiction?

Compare your Results:

Relate your results to previous research or, if required, the findings from your peers in class.

Discuss experimental weaknesses:

Is there any part of the experiment (e.g., methods, materials, assumptions) that makes your results less credible?

Explain the significance:

Why are your findings important? How do your findings expand your understanding of the course concepts?

Conclusion

Objective and Purpose:

What was the objective of the experiment? What did you hope to learn from performing the experiment?

Methods and Materials:

What were the primary methods and tools? What, if any, changes did you make to the procedures?

Results:

What were the main findings? What were the noticeable trends or relationships? What was most important for readers to notice?

Significance:

What do your findings mean? How do the findings relate to the objectives of the lab? What did you learn from completing the lab?

References

Order:

Ensure your references are in alphabetical order.

Complete Information:

All references should contain complete information. Check. Double check. Then check again.

Sources:

Include citations for all information from sources, including text, figures and tables, and other necessary visuals.

Appendix

The Appendix can include any of the following:

Drawings of equipment used in the lab.

Source information for hard-to-find material (e.g., full, generic names of chemicals that you abbreviated in the report).

Detailed, extended calculations presented in the Methods section.

Raw data that have not been presented in a table or figure (e.g., a long table of data that you have represented as a succinct graph in the report).

Drawings or photographs that help explain the results.

Notes from your lab session.

For social science studies, full master copies of questionnaires and instructions for participants.

Arrangement:

Arrange each item on a separate page and include a title. Prepare the pages in the order in which the items are introduced in the report.