

# Lab Report

A lab report is the account of a scientific experiment that was conducted in a laboratory. It not only describes the experiment, but also explains its results and their possible significance. Since the format of a lab report varies from one field of study to another, it is important to follow the professor's instructions.

This resource is not exhaustive and does not replace the writing instructions given in class. In case of any doubt, consult the professor before structuring your paper as it is indicated here.

## Summary

**Experiment:** Describe the experiment in one paragraph. Give interesting and relevant information to introduce the experiment. Present the objective of the experiment, the methods that were used, the results that were obtained, and the conclusions that were drawn. If necessary, use headings like **Objective**, **Methods**, **Results**, and **Conclusions**.

## Introduction

**Context:** Present relevant scientific concepts and explain the reasons that motivated the experiment.

**Thesis:** Present the objective of the experiment.

**Outline:** Present your hypotheses and predictions, as well as your results and conclusions.

## Procedure

**Materials:** Provide a list of the materials that were used to conduct the experiment. If necessary, list the participants' characteristics.

**Methods:** Describe the experiment by using the past tense for accuracy and the passive voice for formality. You can often refer to the lab procedure given in class, but consult the professor before doing so. Indicate all the changes made to the original lab procedure (if any).

## Observations

**Notes:** Indicate your observations at each step of the lab procedure. Provide the original raw data sheet and a table that neatly presents your data. Make sure to give a title to this table and to include the right units.

## Calculations

**Samples:** Provide a sample of each type of calculation. Make sure to include the right units.

**Trial results:** Provide a summary of the results of each trial in a table. Make sure to give a title to each table.

## Results

**Data:** Indicate your results. Use a data summary to describe and analyze your results. Use tables and graphs to clarify your results. Make sure to give a title to each table or graph and to include the right units.

## Discussion

**Findings:** Interpret your results. Explain their possible significance, and refer back to your hypotheses and predictions to assess their validity. Discuss the limitations or possible errors. Make recommendations for further experiments.

**Questions:** Answer all the questions listed in the lab procedure (if any).

## Conclusion

**Summary:** Restate your results and explain what you learned from the experiment.

**Final thought:** If possible, present your results in a broader context to propose other areas of research.