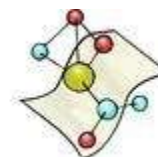


How to write a lab report



Purpose:

- Lab reports are essential in all labs and represent the major part for grading your work.
- Specific protocols and skills are necessary to write a formal lab report and developments of these skills are essential for a successful laboratory experience.
- Writing lab reports are a good exercise for your senior thesis; a thesis has a very similar format!

Prepare for the lab:

- Read the experiment from the lab manual.
- Understand the experiment to save time and avoid errors.
- Never use pencil in writing a lab report.

Organization:

Sections should appear in your paper in the order described below. Each section must be typed in bold letters to differentiate it from the rest of the text.

- 1) Cover page
- 2) Introduction
- 3) Experimental (materials and methods)
- 4) Results
- 5) Discussion
- 6) Conclusions
- 8) References

The lab report should include the following sections:

A) Cover page:

It contains course name, course number, title of lab, course / lab sections, names of participants, name of teacher, and date.

B) INTRODUCTION

Record objectives of the experiments, history, background of the problem, chemical reactions, and structures. This can be usually found in the lab manual.

C) MATERIALS AND METHODS

- Materials include equipments and reagents. Include actual concentrations, weights, volumes, and any precautions required.
- Methods include summary of procedures in your own words.
- Never copy the procedure from the lab manual
- Don't use "I"
- Don't use "First" or "Second" or "Third" etc.
- Don't use numbers to distinguish the steps but write complete sentence.

- Use the past tense and passive voice.
For example:
Not: Collect the precipitate in filter.
But: The precipitate was collected in a filter.
- Define all specialized terminology.
- Define abbreviations.
For example:
The Ethedum Bromide (EthBr) is a red color.
Place a space between a number and a unit such as 10 g.
- Do not start a sentence with a value.
For example:
Not: 2 gm of agarose powder was combined with 1X buffer solution.
But: Agarose powder (2 gm) was combined with 1X buffer solution.

D) RESULTS:

Record tables, figures, calculations, and experiment results without discussing their implications. Hint: Do not start a sentence with “Figure 1” or “Table 1”, etc..

Labelle the axes with the quantity divided by its unit.

E) DISCUSSION:

- Discuss observations and the obtained results.
- Discuss what happened and why.
- Do not repeat the information from the procedure or results section.
- Avoid a lengthy discussion.

F) CONCLUSIONS:

Write a short summary include:

- Record any new information.
- Record any mistakes and correct them.
- Record the information that you learned in the lab and how can apply it in to making a new idea and product.

G) REFERENCES

Record all references, such as journals or books.