

PRRE1003 Resources, Processes & Materials Engineering

Lab A Report Template

Please use this template as a basis for writing your Lab A report. The report should cover **Experiment 1 only**.

Any text in blue is comments or instructions that should be removed from your final report. Text in black should be included in your final report, with modification if needed.

General information about technical report writing was covered in Workshop 1. In particular, please refer to the *PRRE1003 Technical Report Writing Guidelines* on Blackboard, as part of Workshop Technical Report Writing in week 1.

The report is limited to seven pages, not including the title page, references and Appendix.

An Abstract, Table of Contents, List of Figures and List of Tables shouldn't be included. See the Lab A Worksheet for a rubric that shows how the report will be marked.

The first page of the report should be a title page that has the following information:

- The unit name: PRRE1003 Resources, Processes & Materials Engineering
- The assessment name: Lab A Report
- The semester and year
- The Group Code and Class #
- The names and student IDs of the people in your group
- The date and time of your lab session (face to face)

Begin the rest of your report on a new page.

INTRODUCTION

Please provide an introduction, of suggested length about 0.5-1 page, which covers *in your own words* the following topics:

- The significance of Experiment 1, particularly the relationship between atomic structure and the material's properties.
- The aims of Experiment 1 as you see them.
- Some brief background information or theory relevant to the lab work and its aims. Give details of the scientific principles that should be demonstrated by the work in the report, or the hypothesis that the work attempts to prove or verify.

You may need to do some independent reading to address the first and third points above—be sure to reference any sources you use, including any images you incorporate into your report. Use subheadings if needed.

EXPERIMENTAL MATERIALS, APPARATUS AND METHOD

In this section (suggested length about 0.5 page), very briefly describe in your own words the materials, apparatus and experimental method used in Experiment 1. Please use paragraphs unless you are listing equipment.

RESULTS AND DISCUSSION

This section should present Tables 2 and 3 with the data and calculations for Experiment 1, your observations about them, and the answers to the specific questions asked in the Lab A Worksheet.

You will need to show a sample calculation for each Table. Can you also include uncertainty estimates?

If you did your Lab face to face, please only use a data set from 1 person to present your results. You may find it useful to reflect on whether your results are repeatable.

Is there anything further you think should be added to the discussion for Experiment 1? If so, please include it. How do your results from Experiment 1 show the link between a material's structure and properties?

Assignment Project Exam Help

CONCLUSIONS AND RECOMMENDATIONS

Please write a short conclusion (suggested length 1-2 paragraphs) about Experiment 1. Conclusions are about the overarching technical lessons you have learnt: they are not the same as a summary (please refer to the *PRRE1003 Technical Report Writing Guidelines*).

What recommendations could you make related to Experiment 1? This may need brainstorming. Please provide a short list, with explanations as needed.

REFERENCES

Did you refer to any material to help write your report, for example to understand any concepts or provide background information? Did you include any images in your report? Have you included any direct quotations? If so, you should include these sources in a list of references here and cite the references in the text of your report (or in the figure or table captions). Please use the Vancouver reference style (<http://libguides.library.curtin.edu.au/referencing/vancouver>).

Another thing to think about references: when you put a reference in your report and rely on it for information, you are giving it your stamp of approval. You need to be confident that it is a credible source of information. The references given in the unit's Reading List should be trustworthy, but how about other sources?

APPENDIX

This should include items that are not critical to the reader's ability to understand your report. For example, a sample calculations or lengthy addendums. It is an optional part of your report.

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder