Appendix I

LABORATORY REPORT WRITING FORMAT

1. ABSTRACT

The abstract should be able to stand by itself, and it should be brief. Generally, it consists of three parts which answer these questions:

- What is the aim of the experiment? – A statement of the purpose of the experiment, a concise description of the experiment and physics principles investigated.
- What were your results? – Highlight the most significant results of the experiment.
- What do these results tell you? – Depending on the type of experiment, this is conclusions and implications of the results or it may be lessons learned from the experiment.

Write the abstract after all the other sections are completed. (You need to know everything in the report before you can write a summary of it.)

2. INTRODUCTION

Write on the background, the physical principles, and the objectives of the experiment (what it seeks to achieve).

3. EXPERIMENTAL PROCEDURE

- Indicate lab equipment used (could be a simple list or include diagrams)
- Describe the experimental process (steps) in a chronological order. Using paragraph structure, be concise on all the steps.

4. RESULTS

- State all the results obtained here in a well-organized manner.
- Graphics should be easily read and well labeled.

5. DISCUSSION

This is where all your analytical skills come to play. Critical analysis on your results is done here.

- Explain why you got the results you have based on your theoretical knowledge and understanding of the experiment.
- Compare expected results with those obtained and make specific and definite conclusions on disparities or agreements (DO NOT talk about human error as that

will suggest you are not competent - in other words reduce human error to the bearers possible minimum during the experiment)

6. CONCLUSION

In a brief statement, put down what you now know for sure from your discussion. It is a statement of the final outcome of your experiment.

7. REFERENCES

- Include laboratory manual and other materials you might have read in preparation for the experiment or related to the experiment.
- The recommended referencing style is the following.

(a) If a reference is a book

Author name, book name, publisher, city, year.

For example:

John R. Taylor, An Introduction to Error Analysis, University Science Books, CA, 1982.

(b) If a reference is a journal article

Author name, article title, Journal name, year (volume): start page-end page (or article ID).

For example:

H. Fu, Z. Ma, X. J. Zhang, D. H. Wang, B. H. Teng, E. Agurgo Balfour, Table-like magnetocaloric effect in the Gd-Co-Al alloys with multi-phase structure, Applied Physics Letters, 2014(104):072401.

8. APPENDICES

- Include raw data, calculations, and tables that will distract a reader if included in the report.
- Each item should be contained in a separate appendix.