

**Authors Note:** This document was prepared by David Jackson for distribution to enrolled in an Explorations in Physics Course. This will have to be modified to conform to your own course management philosophy and local conditions. You are welcome to use/modify it as you wish.

## **Explorations in Physics Summary Guidelines**

You should write your individual project summary as if a fellow student (one *not* on your project team) is reading it. Your fellow students should be able to understand exactly what you did and why you did it. In addition, there should be enough detail to allow the reader to re-create the experiment and obtain similar results. Thus, if you devise a unique method for making a measurement, your technique should be described in reasonable detail. You may use graphs and data generated by your group but *your diagrams, sample calculations, and wording must be your own.*

### **Length and Style:**

A typical summary should be 5 – 7 pages long (double-spaced) and include diagrams, graphs, data tables and sample calculations as appropriate. In some cases additional information can be appended to the report such as important data. The report must be formatted with each section set off with a header. The text should contain clear, concise prose (w/o bulleted lists). However, equipment lists can be presented with bullets (like those shown above). Your instructor will provide you will a sample report that shows how a project summary should be formatted. If you need help folding in diagrams , tables, etc. please consult your instructor (way ahead of the deadline, please!)

### **Elements to be included in the Summary:**

Your summary should be typed on standard 8 -1/2 x 11 inch paper. In addition, you should avoid the use of typestyles that make it difficult to read. The first page should contain the project title, course name, date, project team members, and author. Although your project might not contain all of the elements listed below (or it may contain some that are not mentioned), here are some common features of typical project summaries:

- Brief Statement of the purpose of the project.
- Description of the investigation, along with background information, if appropriate. The procedure used to obtain data should be stated along with any diagrams of figures, if this is helpful.
- Data should be presented in tables that include units.
- Graphs of data and/or modeling attempts. Ideally, spreadsheets with graphing tools should be used. Be sure to label the axes and use units on your graphs.
- Conclusions based on analysis of the data. This is important!! What does the data tell you? You should interpret, not speculate.
- Discussion of the results. Do your results make sense? What kinds of difficulties did you run into? How might the project be improved?
- Brief conclusion of the project.