GENERAL ADVICE ON WRITING THE FINAL REPORT

Aim:

To communicate your work, interpret it and assess its significance in the context of the area of Physics to which it relates. In particular your final project report is to be a complete report and should build upon the material you presented in your Interim Report (which should have been returned to you with comments by your supervisor). ***Please bear in mind while writing your report, that your Project Supervisor will not be marking your report- it will be marked by two independent markers.***

Content:

(1) The Abstract should contain a brief summary of the purpose of the work, the methods used, the scope of the work, results and conclusions of the research and any recommendations of the author. Aim for about 100 words, 200 words (maximum).

(2) The Introduction will contain:

(i) a section stating the overall aims and objectives of your project and setting them in a general context (i.e., giving the "bigger picture"). In other words, state the problem you are trying to solve in your project and why it is important. You should discuss the previous knowledge that exists on the topic you are working on, so you can set your work in context to the scientific literature (using appropriate numbered references) and explain what you are setting out to do.
(ii) an account of the background theory to the work you have been doing. If you are doing an experimental project, this could be the theory underlying the experimental technique or data analysis methods you are using. If a theoretical project, this might be a description of the theoretical approach you are using and developing. If computational, it will ideally be the underlying theory relating to the Physics problem for which your program is being written.

(3) Experimental/ Theoretical/ Computational Details
The principle here is that all details should be included such that another scientist could reproduce your work. The methodology adopted should be described clearly.

(4) Results and Discussion

Present the results of your work concisely and clearly, including an assessment of errors. You can either include the discussion with the results, or write separate results and discussion sections. The results are to be presented with the hindsight gained at the end of the project, i.e., don't simply present data in chronological order without further thought, be selective, so as to show the most important data.

(5) Conclusions

You may summarise the work in this section describing the key conclusions. You may also give an outlook as to how you would take the project further if you were to continue researching it.

(6) References (all cited in the main text, and listed in the numerical order of citing, see template file) should be to literature journals or published books. References to websites should only be used sparingly (or in the rare case where there are genuinely no published literature references).

NB: The specified line spacing (1.5) and font size (12) – see the template file – applies to the whole report INCLUDING the References.

Some technical points:

1. A word-processed document is essential – modern software packages permits the inclusion of diagrams, graphs, etc. in the body of the text. Hand-drawn diagrams or formulae are discouraged.

2. All illustrations (graphs, drawings etc.) are figures and numbered sequentially in order of appearance and accompanied by an explanatory figure caption. Tables are not figures. They should be numbered sequentially and titled, for example: "**Table 1** Results of first experiments".

3. There is no need for all diagrams to occupy a full page. A figure with little detail can be reproduced on a small scale and set into the text. It really does not take much effort to make the document look good and this will in turn help you get your message across.

4. Avoid the first person: “I connected the meter ....” implies that the result somehow depended on it being you who did the connection. Similarly “we” is to be avoided, unless you are

referring to a genuine joint effort. It is better to use the passive voice: “the meter was connected.....”, etc.

Back to first principles: have a plan

None of the above will guarantee that you get your message across unless you structure your material logically and avoid the ambiguities that often arise when grammatical constructions are wrong and punctuation missing. Plan out your report before you start writing it, maybe by constructing a “flow chart” that shows the sequence of items and their inter-relationship. ***Talk to your project supervisor at this stage***. Think about the length of each section of your report at this stage rather than after you have written everything down- will it result in the total length that you need? This planning will help with controlling the length of each section and avoid one section running to several pages as a result of you writing down everything you know about that subheading, at the expense of other equally important sections.

I am also required to remind you of the University Regulations regarding “cheating” in relation to the adequate referencing of published work: "In these regulations, “cheating” means an attempt to benefit oneself, or other by deceit or fraud. This shall include deliberately reproducing the work of another person or persons without acknowledgement. A significant amount of unacknowledged copying shall be deemed to constitute prima facia evidence of deliberation, and in such cases the burden of establishing otherwise shall rest with the candidate against whom the allegation is made".