Department of Physics

Guidelines for Year 3 Physics Project Module Assessments.

Project Attempt

This part of the assessment is your supervisor's judgement of how well you performed the various tasks associated with the execution of your project. This is based on regular meetings with your supervisor and on the record kept in your laboratory notebook, **which must be produced at each meeting and handed in (with your report) at the end of the project**. The lab book must contain an individual record of your work, even where you are working with a partner. The assessment will be carried out according to the following criteria:

1 Effort:

The first and most basic requirement is that you allocate sufficient time to the project. For a third year project this should be the equivalent of **two to three afternoons (about 7 hours) per week**.

2 Planning:

You should make sure that your effort is evenly distributed throughout the semester. Concentrating most of your project work into the last few weeks can have disastrous consequences, not only for the project but also for your other courses. Try to keep busy all the time; for example, if you have to wait for a piece of equipment to be fixed or a sample to be prepared, use the time to get some of your report written or catch up on some background reading.

3 Scientific Practice:

You should follow sound scientific procedures throughout the project, keeping thorough, accurate and up to date records in your lab book, and developing a good understanding of the appropriate experimental, computational or information retrieval techniques. You should also demonstrate a logical, scientific approach to solving any problems that arise.

4 Communication:

During the project you will be expected to communicate effectively both with your supervisor and your partner (if applicable). You should arrange to meet your supervisor at least once a week to discuss progress. Regular discussions should take place between project partners to ensure that the work is evenly and effectively distributed.

5 Motivation and Initiative:

To get the best marks for your project you need to show some evidence of initiative, enthusiasm and creativity. This could include carrying out extra background reading beyond material supplied by your supervisor, refining and modifying experimental techniques, following up unexpected results to extend the scope of the investigation, improving data analysis, etc.

Project Report

Project reports must be written individually, even where you are working with a partner. The report should be written so as to be understandable to a non-specialist physics graduate and should, where appropriate, follow the standard structure of a scientific publication. It should be **word processed**.

After a title page (giving the title of the project together with your name and those of your partner and supervisor), it should begin with an abstract of about 150 words summarising the work and its conclusions. This should be followed by an introduction describing the background to the problem and the state of understanding at the commencement of the work.

The main body of the report should include a discussion of any experimental methods, theories, etc. relevant to the conduct of the project. Wherever appropriate adequate references should be included and a Reference list placed at the end of the report.

Experimental results should normally be shown in graphical or tabular form but large tables of data should not be included. A proper assessment of the experimental uncertainties should be made, wherever this is appropriate. Figures should be numbered in sequence with suitable captions accompanying each one. Legends, annotations and axes labels, including units, must be clearly indicated.

Towards the end of the report there should normally be a section dealing with any discussion of the work with added conclusions and possibly suggestions for further work in the field.

Although the actual length is difficult to prescribe, project reports should normally not exceed **12 pages** (plus appendices if appropriate, for example where you may want to include a computer program or large tables of data).

The main criteria for assessment will be the coherence of the scientific argument and the extent to which the structure and content are appropriate for the subject. However marks will be deducted for poor written English – this includes spelling (remember to use the 'spell check' facility on the word processor), syntax and punctuation. You are encouraged to submit a draft version of your report to your supervisor **one week before the submission deadline**. The supervisor will provide you with **general comments** on content, style etc but cannot specify detailed changes you should make!

In addition to handing in **two** bound copies of your report to the F10 Student Hub, you will also be required to submit an electronic copy to the "Turnitin" plagiarism detection software. Details of how to do this will be circulated by e-mail in the two weeks before the deadline.

Oral Examination

1. Each oral examination will begin with an invitation to give a **5 minute informal presentation** to the two examiners, giving an overview of the project work. (An oral presentation with perhaps a few sketches on the whiteboard will be perfectly adequate. A prepared PowerPoint presentation is **not** required.) This should be kept general at this stage and you must resist the temptation to become involved in the minutiae. (As a general guide, imagine you are at an interview for a post and a non-specialist asks you to describe, very briefly, what the project was about.)

2. In the main part of the examination you will be expected to show a good understanding of the problem, the content of the report and other relevant background physics.

3. It is an opportunity to clarify ambiguities and possible omissions in the report.

4. Questions will be those judged relevant to the project work and should normally be straightforward to answer if you carried out the work thoroughly and thoughtfully.

C N Booth 22nd September 2016