Projects: Final Report / Dissertation Requirements

1. Introduction

Your Initial Project Proposal gave you a chance to put forward an idea for your project.

Your Interim Research Proposal explained how you are managing your project.

Your Final Report – often called your Dissertation – should tell your readers what you wanted to do, how you went about doing it, the results you achieved and what you believe it all means.

It is your opportunity to communicate your work successfully, and provide you with not only a report for assessment, but also a document for your long term use as you develop your career.

2. Developing your Project

When developing your project, you should actively implement the project management principles you learnt at level 2: this will help ensure your project has a good chance of succeeding. Make sure you regularly review the information you identified at the Interim Research Proposal stage for resources, risk, ethics, contacts and overall planning, so that you stay on track with your project. Ensure you update these forms where necessary.

The actual process you should adopt is very much dependent on the nature of the project, and it is here that input from your supervisor is vital. The following notes provide some general information.

What you should have already done – if not, do these activities now:

- Be aware of module requirements, submission dates etc. Plan for these.

- Be certain that you understand your project's "problem", i.e. the work to be done, and the reasons why this work is required. Take guidance if this is not the case.

- Your project may either examine a particular topic in great depth, or combine different areas of thinking into a new whole.

- Formulate the aims of the project. Make sure they are realistic, considering timescales and resources.

- Spend time researching other approaches to the same and similar problems: this will become the literature survey.

- Undertake a few basic investigations and/or designs to help get a feel for the project.

- Analyse the results of the initial investigations / designs. Be guided by what you find to decide your way forward.

- Undertake iterative steps of investigative / design work, result-taking and conclusion-drawing. Seek advice if the results are unexpected.

- You must plan your project from the very start. It is always clear from the dissertation whether you have been working according to a properly planned route, or simply blundered along.

- Check your plan with relevant staff – supervisor, technicians - and ensure your risk assessment supports it. Review both regularly to keep them current and ensure that what you are actually doing meets the plan – or explain where you are deviating from plan, and why. Re-plan accordingly, and re-assess your risks.

- Have regular contact with your project supervisor, and always arrange future meetings.

- If / when you encounter any difficulties, perhaps due to circumstances beyond your control, contact your supervisor and seek advice as soon as possible.

- A project needs to contain your personal input. A review or examination of an existing system / device without out clear demonstration from you of your new thinking and activity does not generally produce a project with a high mark.

3.   The Dissertation (Final Report)

Your project investigation concludes with a written document - the Dissertation, or project Final Report. The markers will read, scrutinise and mark this document.

Note: the marks are for your Report – not the actual project activity: if you conduct your project well, performing good work - but leave the Report to the last few weeks and submit a cursory document, you will not do well.

The Final Report is a comprehensive discussion outlining your findings and conclusions from the completed project. As a guide, it should contain the majority of the sections outlined below; take advice from your supervisor.

- Title page:
    - Your Student Number
    - Your Name - on the front page and on the appendices' forms **only**
    - Your Supervisor's Name
    - Project Title
    - Your award programme
    - If relevant, a statement about any industrial links or support associated with the project
    - The number of pages in the main body of your text, from the start of the Introduction to the end of the final chapter (normally the Recommendations).
    - Word count – maximum:
        - **BEng/BSc and MEng A: 12,000**
        - **MEng B: 15,000**

- The word count includes everything in the main body of the text (including headings, tables, citations, quotes, lists, etc.), between the start of the first chapter (Introduction) and the final chapter, inclusive. Your Reference list and the Appendices are **NOT** included in the word count.

- Put your student number into the "Header" of your document, to ensure all pages stay together. Your name is only required on the title page and the appendices' forms.

- Abstract: A brief statement to introduce the investigation/work, and to state, briefly, the findings made and the conclusions reached. The abstract may be 20 - 30 lines in length.

- Acknowledgements: if you wish, add a brief paragraph acknowledging the help and support you received throughout your project. Note that this is a formal document, so you should also write this paragraph formally - not light-heartedly.

- Disclaimer: Put a disclaimer in, to show this is your own work.

- Contents page: You must provide a full list of all chapters and sub-sections with associated page numbers. Where relevant, further pages can be added after the Contents page:
    o Nomenclature
    o Glossary of Terms
    o List of Tables
    o List of Figures

- Introduction: The Introduction informs the reader of your reasons for doing the investigation. It sets out the project's context – the state of knowledge before the investigation commenced, and why you conducted the project. You should state whether the project was a supervisor's idea based on his/her research interests, part of an industrial project, or based upon your own interests. You should also show the project brief, developed at the start of the project.

- Scope and Objectives: You must clearly state your project's aims and objectives, and the scope in which these are set. At this stage you should refer to your project plan, and note any deviations from the original plan and why.

- Background Research: You need to provide your reader with sufficient background to understand the project and its relevance to you. The Background Research is where you explain your initial thinking about the project's context. This is developed further through the:

- Literature Survey/Review: You must research your project before commencing detailed practical or investigative work. You should continue this process as the project progresses to ensure you stay on track. Analyse and discuss your review's major findings, and their implications for your project development.

- Methodology: State how you developed your project methodology, based on your background research and reading. Explain why you chose a particular approach, and all assumptions you made.

- Analysis and Evaluation: State all your findings and the various concepts you have evaluated to arrive at the final set of results and conclusions of the research or investigation. The precise make-up of the chapters in the body of the report will be very dependent on the nature of the topic undertaken, such as:
  - Analysis: theoretical, computational, design
  - Specification
  - Concept
  - Preferred Design
  - Implementation
  - Testing /Trials
  - Empirical results: analysis of results and discussion

- Critical Thinking: You must discuss within your Dissertation the project's significance and context, your opinions of the activities you undertook and your engagement with the related theory. You should begin to formulate your own questions about the theory, and describe how this helps you formulate potential solutions. Additionally, consider how your project relates to the Engineering Council's Competencies for Engineers (UK-SPEC) – this helps you prove you are meeting such professional engineering requirements. Consider the wider context of your project, including ethical, environmental, financial and societal issues.

- Conclusion: The conclusion draws together the different aspects of the project, comparing the results obtained, or the work achieved, with that originally intended.

- Recommendations for Further Work: At the conclusion of the project, you will have developed other ideas, things that were not within the scope of the original project, but which could be attempted to further the general level of knowledge. These should be itemised in the Recommendations chapter.

- References: You must cite all references you use in the report, and all these references must be itemised in this section. All references must be set up using the UWE Harvard referencing system.

- Bibliography (not compulsory, but is useful): Books or other published material that you have used to assist the study, but which you have not actually cited in the text as references should be itemised, in UWE Harvard format.

- Appendices: These include the same documents as you submitted for your Interim Research proposal; however, you are expect to update them regularly through your project, and provide the final versions in this section of your Final Report:
  - Your Project Plan
  - Your updated Ethics Checklist, Risk Assessment and Resources Forms, plus your Contacts Register
  - Also any supporting material, e.g. pages of tabular results that support the main text but do not fit the "flow" of the report should be included in the appendices. It is not necessary to include data or copies of pages from, e.g. standard catalogues (reference these instead).

You will receive marks based on the main body of the report. So you should use your supporting material appendices sparingly – markers will read them only to review detail behind your analysis, if it is ambiguous in the main text.

4. Dissertation – Layout and Submission

The dissertation should conform to the following guidelines:

- The word count is:
  - 12,000 maximum for UFMFX8-30-3 (BEng/BSc) and UFMFY8-30-3 (MEng A)
  - 15,000 maximum for UFMERY-30-M (MEng B)

Note: if you exceed the word count, markers are not obliged to read beyond the limit.

- Page numbering is required
- All pages should include in a header your student number and the dissertation title
- Use standard margins, as in this Handbook
- Use a clear font, such as Tahoma, Calibri or Arial, 11-point size
- The report is to be word-processed, using Word, Writer, LaTex or similar
- Present graphs, circuit/flow diagrams and other technical material using appropriate software
- You must correctly reference all material taken from other documents, including all diagrams and figures – both in the text and in the diagram/figure label
- Demonstrate your report writing skills by being clear and succinct
- Print on A4 paper, either single or double sided, with 1.5 line spacing
- Bind the dissertation; spiral binding is appropriate.

Materials to submit

You must make your submission **by 2pm on 12th April 2018.**

Submit two paper "hard copies" in a large envelope or other secure folder to the A-block Submission Hub with a Faculty cover sheet – you should be able to obtain the cover sheet from your myUWE tab. If not, there are blank cover sheets available from the A-block Submission Hub itself.

This submission must include:
- Two bound copies of the Final Report
- The project poster – see section 5.

Also submit an electronic copy of both to your Blackboard submission point.
If you have supplementary material, such as coding or CFD "runs", submit this to Blackboard, or directly to your supervisor.

Note: the formal submission is the paper, "hard" copies of the Dissertation and Poster. Remember to allow yourself enough time to meet the 2pm submission deadline.

5. Project Poster

You are required to produce a project poster, for use in your Viva. This should be submitted with your Dissertation. Details of the poster submission are available on Blackboard in section "Posters".

Note: a poster is still required, even if your project is company-confidential.

6.   Confidentiality Agreements - Reminder

If your project activities involve working with an employer or private company, it is possible that you will have access to confidential information that the company will wish to protect. Follow the guidance given on Blackboard in section "Company Projects & Non-Disclosure Agreements".

7.   Project Final Report Assessment

The project's Final Report / Dissertation is the single most important product of the project. It reports the work you have undertaken, your investigations and results, and your conclusions. Remember, your written Dissertation is what will be marked, not your actual project activities.

Your supervisor will read the Dissertation and allocate a mark; a second marker will also provide a mark. Additional academics will also read the Dissertation and give their opinion on a deserved mark, as part of the project moderation process. Second markers may not be experts in the field that you have researched, but will have an engineering background. Therefore, you should write your Report with this audience in mind, conveying to these non-experts the extent of the work that you have executed.

There are many cases of students having done truly excellent, original work - but who ultimately receive only a low mark, because their work was poorly presented – perhaps with many relevant facts being omitted. Presentation, in terms of content, is vital.

Marking Criteria

The Final Report / Dissertation is worth the following towards your project module mark:
- UFMFX8-30-3 and UFMY8-30-3
  - 85% of Component B, which comprises 75% of overall mark
  - The Interim Research Proposal comprises the other 15% of Component B
- UFMERY-30-M: All of component B, 75% of overall mark.

The Projects' Final Report Marking Scheme, found on Blackboard in section "Assignments – Final Report", identifies the criteria that will be used to mark your Final Report / Dissertation.

8.   Project Viva

A project viva will take place following submission and assessment of the project, at which you will have the opportunity to "defend" your project: to present and discuss the research undertaken, your findings and conclusions reached.

Further information about the Viva can be found on Blackboard in section "Assignments - Viva".

9.   Project Feedback

Soon after the viva, you should expect to receive general feedback about your project. You will not receive a provisional mark or "mark band". You will receive the final module mark after the full marking, moderation and field board process is completed, normally mid-June.

You should expect - and should ask for, if not given – comments on your projects
- How your Report has been assessed
- What are its positive and negative points
- What improvements may have been made, etc.
- How well you did at the Viva.

You are entitled to an email copy of the main points made.

Note: you should keep a copy of your Final Report, as you will NOT normally have the submitted copies returned to you after completion of the examination process, *unless* your project and its report are company-confidential.

Nov 17