School of Computer Science and Electronic Engineering

MSc Project Handbook for Programmes in Electronic Engineering Module EEEM004

2024/25

Introduction

These guidelines contain requirements, suggestions and comments for your MSc project. All these are intended to provide a foundation on which your project will have the best chance of being successful. It is important to realise, however, that first and foremost it is YOUR project. Please remember that while you will be supported by your supervisor and other members of the school, it is your responsibility to bring it to a successful conclusion - the award of your MSc.

Project Deliverables

The research related to your project is divided into two phases; the preparatory phase and the full-time phase. During the preparatory phase you are expected to spend approximately 3-4 hours per week on your project on top of your expected 40 hours of study per week on your taught modules. More time will be spent on the project during the Easter vacation period (up to 40 hours per week where there are no classes), leading ultimately to the first 100 hours being completed by week 11 of the Spring semester before you embark on your examinations. The full-time phase starts from the end of the Spring semester examinations until the project submission date at the end of the summer. Throughout the full-time period, 40 hours per week is reasonable. It is in your own interests to participate fully in the preparatory phase so that your have clear direction on where your project is going so that you will be in good stead to successfully complete it in the full time phase. Part time students should adapt these hours according to the different schedule they are on.

Supervisor Preferences: Due Week 3, Spring Semester Calls for this take place from week 15 of the Autumn semester. Instructions on what forms to complete and how to go about deciding on your preferences are made available at the time. During week 3 of the Spring semester, allocations will be made as soon as is viable and beyond that point students will begin to meet with their supervisors to bring together their project plan.

First Project Report: Due Tuesday Week 6, Spring Semester
Students must submit a short report (maximum six pages) consisting of abstract and detailing their understanding of the project objectives with a draft plan of work which may include a Gantt Chart. Also you will need to complete a compulsory ethics questionnaire both in the report and online. A template for the first report will be made available on SurreyLearn. After the supervisor has agreed the content, it can be submitted by the student. This is done so that any misunderstandings can be identified and corrected at an early stage, while also it ensures the supervisor and student have agreed some clear target objectives both for the preparatory stage and the full time stage. Therefore, though the first report is not assessed, it is in your best interests to get the details in it right so that it can set you in the right direction. You will have to submit undergo a review to then do well at your review stage – hence how well you do your first report will have a bearing on your performance at this point. We will take action with students who fail to submit a first report in anticipation that they are failing to engage in their project properly.

Project Progress Review: Weeks 10-11, Spring Semester
During the Spring semester and including the Easter vacation period, students should carry out preliminary work and a background study for the project and begin to generate some initial results. This is all possible to do within the first 100 hours of the project that can be completed by week 10. Furthermore, students will be required to complete and submit a progress review form, which will be made available to download from SurreyLearn. It is important that some substantial work is carried out in order to complete this form, notably to identify key references and form a commentary on the literature gathered to ensure that the

literature review phase has been completed. Furthermore, the form should detail what initial results have been carried out and either included in the review or noted that they have been sent to the supervisor separately during the course of the project.

Though the project progress review is not assessed, it is necessary to submit the completed form by the given deadline in week 10 and ensure that a follow up meeting is carried out with your supervisor in either week 10 or 11 to discuss your progress. Your supervisor will add formative feedback comments to your report and they will be asked to indicate whether your work is satisfactory or unsatisfactory to date.

Final Dissertation Report: See key dates section of the support guide for deadlines
Your completed submission should be a professionally presented report with a clear introduction covering the objectives, methods and achievements of the dissertation. The literature review in chapter 2 should be clear and focused followed by well documented technical sections showing your methodology and analysis of results. It should conclude with a critical appraisal of your own work and summarise what has been achieved. From identifying the limitations the conclusion would also identify further work. As a guideline, dissertations are typically 60-80 pages in length but you need to ascertain what the right length is to communicate clearly the work you have done and include essential background information within it. Your examiners are not going to want to read reports that are unnecessarily long and they are not going to be impressed with short reports. Your dissertation should be concise and include only the necessary content as well as have a good narrative. A template will be made available to download from SurreyLearn and you will find some guidance on what to write in that template as well, which you should follow. Some further guidance on writing the dissertation is also given later in this handbook.

Project Viva Examination: Viva to take place within weeks after submission of the final dissertation report
After submitting your final dissertation report, you will be required to give a presentation on it, and answer questions in a viva. You will be asked questions to determine what original work you have undertaken and how well you understand what you have done. Your presentation should last no longer than 20 minutes and it should have therefore no more than 12 slides in order to fit into that time window and then have questions afterwards. Your viva performance will be based on the quality of your presentation and the defence of your questions, which will form the mark for this component. Further details about the viva and the assessment scheme are included later on in this handbook.

Assessment Criteria and Viva examination

You will be required to present your final project to your examiners, one of whom is your supervisor. One of your examiners will contact you with details of your allotted date, time and venue; including a 15-20 minute presentation by yourself, which is then followed up with questions from your examiners. You will be assessed and receive summative written feedback on both your report and viva though the mark will not be released to you until after the subsequent exam board.

In addition to the assessment of the project the examiners must make one of the following recommendations:

- The project is of pass standard. You will have no corrections to complete.
- That the project is of pass standard, subject to specified, minor corrections being made to the copies of the project report. You will have **40 days** from the date of your viva to complete these and submit a revised copy of your report.

- That the project is failed, but that the student is permitted to submit a revised dissertation by a specified date within 6 months after the release of the mark. Following re-submission, the same examiners (unless otherwise not possible) will reassess the report and normally will hold a second viva unless the viva component happens to have been passed. If the resulting mark is higher than 50% it will be capped at 50%, otherwise it will remain unchanged.

The Final Dissertation Report will be marked based on the following weighting:

Technical achievement presented within the report.	60%
Report quality including readability, structure, citations and figures/tables.	40%

The final viva examination will be :

Technical achievement presented and demonstrated in the presentation and through questions asked in the viva.	50%
Performance at interview in answering questions and displaying reasoned argument and logical thought.	50%

Grade Descriptors

This module is marked based on some grade descriptors where the examiners will be carefully marking the different aspects of your dissertation and viva presentation to evaluate the progress you have made and carefully evaluate within which grade boundary you fall. There are ten grade boundaries specified for MSc programmes with corresponding mark boundaries: Exceptional (90-100); Outstanding (80-89); Excellent (70-79); Good (60-69); Adequate (50-59); Below expectations (40-49); Well below expectations (30-39); Far below expectations (20-29); Far below expectations (10-19); Very far below expectations (0-9). The grade descriptions table in the appendix for these ten boundaries describes what achievements a student typically makes when they fall within them. It should be noted that a mark of 50 or more is required to pass.

Recommended Format for a Project Dissertation

INTRODUCTION

Front covers and a report template are available on SurreyLearn and are released in good time before starting to write the dissertation. The front page of each copy must show the copyright holder (e.g. “©20xx Author’s name”, where xx is the year).

UNIVERSITY REQUIREMENTS AND LAYOUT

The University requirements on format, employed in the template, are:

It is a University requirement that MSc project reports be produced electronically on A4-size paper and that all pages be numbered serially.

Prepare your Project Report in a single-column, in 1.5 line spaced text, and in justified alignment format. Please use a blank line to denote the end of a paragraph.

Typefaces

Times New Roman 11 point for body text, figures and tables, equations and formulae.

Headings

- MAIN HEADINGS (numbered 1, 2, etc): Size 12 pt, typed in capital letters, using bold type, flush with the left-hand margin. Allow one line space above. DO NOT number individual paragraphs.

- Sub-headings (numbered 1.1, 1.2, etc): Size 12 pt, initial capital letter only, using bold type, flush with the left-hand margin. Allow one line space above.

- Table headings: Size 12 pt, initial capital letter only, centred above the table.

References

References should be complete - their use is to demonstrate your knowledge of, and reflections about, current thinking and activity in your field of study, and to help subsequent readers follow up your work. Any material that you use in your report that is taken from other sources MUST be referenced; in other words **ALL** your sources **MUST** be indicated, including, for example, concepts, ideas, words, information, processes or protocols, and figures. Any material copied or used from sources, but not appropriately referenced, leads you open to a charge of plagiarism, which may result in loss of marks, at the very least, or even complete rejection of your project.

Please refer to the information on Plagiarism which can be found under the section on Academic Misconduct in the Student Common Room on SurreyLearn for full details of what this means. You will be asked to sign a declaration of originality form when submitting your dissertation, to say that you have understood this and will comply with it.

The agreed system for references to published work is the IEEE method as indicated in the template.

Academic Misconduct and Late Submissions

This is to remind students that any final dissertation report submitted after the deadline will be treated in the same way as for coursework and marks will be deducted accordingly. Details of the penalties are found in the programme handbook.

Details of how to submit the final dissertations report are sent to students by email nearer the time of the deadline. It is the student's responsibility to ensure they follow all submission instructions correctly, which will be sent out by email at an appropriate time prior to the deadline. Failure to do so may result in loss of marks.

All submissions are also automatically submitted to Turnitin to test for originality. **The University takes plagiarism of work very seriously and any student found to be doing so will be called to an academic misconduct panel.** You are advised to go to the Student Common Room on SurreyLearn to be familiarised with the regulations on academic misconduct.

Deadlines and Extenuating Circumstances

Deadlines for submission of your final dissertation report are clearly laid out in the project briefing sheet that is given so that students are well aware of what the process is. Submission folders are also set up closer to the time of the deadline and you should check they are available. Careful planning is required to ensure the work is completed in time for the deadline and not left to the last minute. Any late submissions will undergo the same penalties as late coursework submissions and any submissions more than four days after the deadline will not be accepted.

Careful attention should be given to make a dissertation file that is not too large. Compress images before they are inserted and the whole document need not exceed 20MB at the very most. Larger files may fail to work and will not be accepted. Submission should be started well before the time of the deadline so that it does not fail and indeed it is advised to do so the day before.

Extenuating circumstances can be applied for to gain extensions to the deadline but this is strongly advised against. Anyone who does gain an extension will not have their mark go to the subsequent board as there will not be time to arrange viva examinations beforehand. Therefore choosing to take an extenuating circumstance may delay your award until the following exam board that will be several months later. **This therefore means that extenuating circumstances should not be applied for unless you absolutely need them.** Applying just to gain extra time is an extremely unwise and naïve thing to do. A further important note to make is that any extensions to submission are not allowed beyond ten working days, while self certified extensions will only allow a maximum of five working days extension. This is a hard constraint set by the University and it is important to note the following:

- Students who find they will be unable to submit their final dissertation report even with ten working days extension must inform either their personal tutor or senior personal tutor at the earliest opportunity that they are not able to engage in their project so that temporary suspension of studies can be arranged. In these circumstances, students will well know during the early stages of their full time project that they are unable to complete it and must ensure they take responsibility to ensure they take such suspension. Longer deadlines than ten working days will not be given to any student and therefore temporary suspension is the only way to achieve this.
- If you find that you are affected by a small extenuating circumstance around the time of your dissertation submission (e.g. minor illness) such that you feel you cannot submit it on time with it sufficiently completed, then this is where it is appropriate to complete a self certifying extenuating circumstance to allow an extra five working days or one week for submission.
- Where there are more substantial extenuating circumstances close to the days of submission (e.g. more substantial illness which you can prove with evidence) then this case would be appropriate to submit an extenuating circumstance to extend by ten working days or two weeks.

Ethical Review

Some projects require ethical review in order to carry out the research. In your first report, you will have a simple questionnaire that you will need to complete at the end and the table is copied below for convenience.

	Y/N?
1. I have completed the first report and checked it with my supervisor and I am aware of whether any research I carry out will require ethical review.	
2. My research will involve taking data from human participants (this includes, but not limited to, technical measurements with humans, photographs of humans, medical scans of humans, survey data from humans or information from humans' devices such as smartphone or computer).	
3. My research will involve using human or animal tissue.	
4. My research involves using personal data of humans.	

If you find the answer to questions 2, 3 or 4 is "Yes" then you must discuss the matter with your supervisor and complete a self assessment for governance and ethics (SAGE) form online. The link will be provided in the first report.

If the answer to questions 2, 3 and 4, is "No" then you will not be required to complete the form.

Guidance for Dissertation Content Write-up

This section has been written to give you some guidelines on writing a good dissertation and what features will give a good impression to examiners. A good write up will play an important role in the presentation and summary of your work. It also points out some aspects of dissertations that students commonly miss out when writing up, yet are important to include.

General Report Quality

Your report should have good quality structure, clarity, conciseness, thoroughness, adequacy, consistency and style in order to read well. Corrections may be specified by examiners after the viva but they do give some allowance for grammatical, linguistic or dyslexia-induced errors if these can be dealt with as minor corrections.

Abstract and Introduction

1. Is there an appropriate abstract and introduction with clearly defined goals and measurable objectives? Does the introduction clearly list the objectives of your project? There are a wealth of resources on the web to explain how to write a good abstract.
2. Is there evidence of having reached realistic technical goals considering constraints of time, resources and student's abilities?
3. Are the project ideas communicated in a form that can be easily understood by an interested and knowledgeable reader?
4. Does the introduction bring out the relevant background to the topic that the need for the objectives are obvious?

Review of relevant existing solutions and literature.

1. Is there evidence of reading around the problem area/ investigation of other products/ investigation of other methodologies?
2. Is the range of the reviewed literature appropriate for the project? Has only the necessary literature and background information been included?
3. Is the literature correctly referenced with a proper and consistent citation style across the manuscript?

Student's contribution

1. Is there a clear description of the proposed methodology and work performed?
2. Is there evidence of understanding of the underlying principles behind the problem?
3. Is it clear which aspects of the project the student has contributed to, and which are the work of others (if any)?
4. Is there evidence of having assessed alternative approaches to solving problems encountered and come to a sound decision?
5. Are the experiments clearly explained and sensibly designed?
6. Are the results discussed and appropriate conclusions drawn?
7. Are the figures with captions referenced and discussed in the text?

Summary and conclusions

1. Is there clear reflection on the project process, showing achievements in overcoming difficulties?
2. Is there reflection on the project management with respect to initial planning?

3. Are the outcomes and deliverables evaluated with respect to the project aims and to the work of others?
4. Are the main achievements of the project summarized?
5. Is it clear what future work could be done to the project?
6. What is the standard of written expression: ability to convey what has been done clearly and coherently, using appropriate technical language?

Demonstrating Technical Progress and Achievement

Technical achievement is an important component assessed by the examiners. It will be evidenced both by what you have written up in your dissertation but also by what original work you present and discuss at your viva. The level of achievement will be judged relative to expectations set in the objectives and the level of difficulty of the task. Some advice is given in this section on what demonstrates good technical achievement.

Approach, application, intellectual and practical difficulty of the project, relation to taught material and state of the art, quality of deliverables and report.

1. How demanding is the investigated problem?
2. Is the work placed in context that demonstrates that the project has built upon existing work or has developed a new approach?
3. How suitable is the design and investigation into the problem context?
4. Is the scope/complexity of the undertaking appropriate or higher than average for the MSc level?
5. What is the internal elegance/engineering quality of the deliverable?
6. Has the design/implementation of the deliverable involved creation/mastery of something new to the student (e.g. a programming language, design method, area of computing)? Did it require extending taught techniques/knowledge significantly by the student?
7. Is the professional competence demonstrated by applying appropriate theory and practice to the analysis, design, implementation and evaluation of a non-trivial solution?
8. Is there a large extent and realism of testing which has been carried out?
9. Is there evidence in the report of analytical thought exemplified by the quality of argument, the ability to weigh evidence, the ability to penetrate a complex application domain, to offer a succinct summary, an enlightening commentary?
10. Is there a high quality result or output?
11. Does the student understand the issues and the solution adequately?
12. How original is the proposed method or product?
13. What is the level of novelty and advance with respect to the existing products / solutions / state-of-the art?
14. Is it worth publication?

Professional Skills
Professional skills play an important part in technical achievement (as well as showing good interview performance), where students are expected to demonstrate engineering ability, analytical skills, interpretation of results, thoroughness, awareness of wider context, productivity, self-reliance, supervision requirements, initiative, enthusiasm, motivation.

This will require academic and professional rigour as displayed by attention to detail, care in representing accurately what has been done, evident integrity both in investigative work and in software/hardware development, commitment to the work, enthusiasm and pride in the outcome. Some points to consider are below:

1. Was there a high level of the effectiveness of student's project planning?
2. Was there a high the rate of progress and degree of organisation?
3. Was there a low supervision requirement from the student?
4. Was the student attending agreed meetings with supervisor, were they prepared, gradually taking the lead at these meetings?
5. Was the student keeping good quality documentation including diary of the progress of the project including the content and outcome of meetings? Is there a logbook signed by the supervisor?
6. Was there evidence of analytical skills on high or satisfactory level?
7. Was the student drawing up a sensible work schedule at the outset and showing the ability to self-monitor throughout?
8. Was the student anticipating problems and suggesting revisions of the work plan, scope of the project or means of accomplishing goals as necessary?
9. Was the student showing initiative and organisational independence in the management of the project?
10. Was the student demonstrating ability to respond to advice regarding organisational matters?
11. Was there a high level of flexibility and imagination in generating ideas?
12. What was the degree of self-reliance/resourcefulness in solving technical problems?
13. What is the ability to seek out sources of technical information, to understand and apply them?
14. Was there a high level of the enthusiasm and drive shown by the student?

Quality of Viva Presenting

In the viva, the assessment will also consider the presentation quality, clarity, handling of questions and ability to articulate what has been written in the dissertation. In particular the viva will enable the examiners to consider the following:

1. What is the student's ability to communicate effectively?
2. What is the depth of understanding of the objectives and subject matter?
3. What is the student's ability to explain and justify any aspect of the design, implementation, evaluation of the deliverables - can authorship be confirmed here?
4. Does the student engage with the examiners in a confident and thoughtful manner particularly when presented with provocative/novel ideas?
5. Can the student assess the relevance/validity of suggestions made by examiners and respond accordingly?
6. Is there a practical demonstration? Does it meet your expectations? Is it impressive, convincing?
7. What is the quality of the produced software or hardware, analytical study?
8. Do the completed parts of the project work to specification?

Meetings with your supervisor

It is part of your professional training to become used to preparing carefully for meetings and discussions in advance, so please practise this in your dealings with your project supervisor.

Ensure that you fully understand the obligations on both you and your supervisor by discussing the supervisory relationship with your supervisor at the earliest opportunity. If there are aspects which you do not fully understand, talk them through with your project supervisor.

Once the project title has been agreed, students must discuss the project requirements with their supervisor.

Discuss with him/her the type of guidance and comment you would find most helpful and agree a programme of study and background reading which best suits your needs in the light of your proposed project.

You should arrange regular meetings (usually every one or two weeks) to meet your supervisor to discuss progress. If you have problems it is even more important that you see your supervisor – do not stop meeting because you have nothing to show him/her. Some supervisors will also put you in contact with a mentor – generally a postgraduate researcher, who can help with the day-to-day difficulties – make use of such contacts!!

You should also discuss the project report with your supervisor; get feedback on your chapter structure, inclusion of detailed software listing etc. For non – English speakers the English Language Institute tutors will also give you help if you have attended certain classes.

Take the initiative in raising with your supervisor any problems or difficulties which you may encounter. Your supervisor's time is not limitless and there may be occasions when he or she may simply not be available. Within reason, however, every effort will be made to meet with you as and when necessary.

Ensure that you attend agreed scheduled meetings on time and maintain the progress of your work in accordance with the stages agreed between you.

Project cycle for part time Students

Part-time students usually undertake their projects within their sponsoring companies. There are many ways in which the project may be carried out, for example working one or two days per week throughout the year, or alternatively a task which is concentrated into 15 weeks of full-time work (in addition to the preparation time). It is also possible to undertake a University based project although this would be appropriate only in rare circumstances.

Part time students are advised to embark on their project as late into their programme as possible, thus completing as many modules before the project starts as possible. It is a rule set within the school that part time students may not start a project until they have successfully completed at least four modules.

Before the start of any Project work part time students are required to produce a proposal, including a work plan and the name of their company supervisor where applicable, so that a University supervisor may be appointed. For industrial projects, the University supervisor gives advice on the suitability of the work as a project and tries to ensure that the dissertation runs smoothly and that the company allows sufficient time for the work.

Appendix – Grade Descriptor Table

90-100 Exceptional (Distinction)	Has an exceptional breadth and depth of knowledge such that they have taken the knowledge from their supervisor and furthered knowledge beyond the objectives that benefits the supervisor and the wider research community. Could potentially publish a research paper or patent from the work. The dissertation would include excellent understanding and limitations of the knowledge gained from the work and what further work could be carried out. It would have a thorough and wide literature review showing a wide study of the work from which an extensive range of appropriate, independently selected sources to inform arguments. Results presented will have clear critique to develop new insights and authoritative conclusions based on rigorous independent thought and own work. Examiners will be able to dialogue constructively on useful applications and the value of the work such that the candidate can articulate how to apply theory to practice in a way that is creative and original while offering striking insights. Questions about the work in the viva would be answered with excellent judgement on the basis of evidence when tackling complex problems. Good justification for the research methodology must be shown while the work will exhibit exceptional technical and professional skills, including research skills, planning and organisation of the project.
80-89 Outstanding (Distinction)	Has an outstanding breadth and depth of knowledge and objectives fully met, with the ability to carry out work for a supervisor independently that it may contribute to other work they are carrying out, which they may input to a publications, research deliverable or patent. The dissertation will demonstrate very good understanding and have some measure of realising the limitations of the knowledge they have contributed. A good literature review with also good study to reach useful conclusions that can help a researcher or group of researchers to fine tune with further independent sources. Results will be presented based on useful rigorous independent thought, which may have the potential to be polished into a contribution to knowledge. In a viva such a student would be able to dialogue with examiners such that they can articulate a significant development otherwise not previously thought from the conclusions drawn while good judgement will be given with evidence when answering questions on complex problems. Good research methodology will be demonstrated with outstanding demonstration of technical and professional skills including research, planning and organisation of the project.
70-79 Excellent (Distinction)	Demonstrates an excellent piece of work where the research objectives are fully met and that the research carried out will provide a good building block that leads to allowing another researcher to take the work substantially further. The dissertation will demonstrate a useful breadth and depth of knowledge, with some good understanding of the limitations of the knowledge contributed, a good literature review will be present in contextualising the work to use a set of independently selected sources and own work well leading to useful conclusions. The viva will demonstrate creative and original work that offers some useful insight with good judgement on the basis of evidence in answering questions to complex problems. Excellent skill is shown in forming a methodology, reporting and analysing results with excellent demonstration of technical and professional skills including research, planning and organisation of the project.

60-69 Good (Merit)	Demonstrates a systematic and broad understanding of the subject with a good piece of work carried out meeting the objectives well with a good level of independence and can explain the detail of the work carried out. Some understanding will be shown of the limitations of the knowledge gained and but may not be fully articulated. Some useful informed conclusions will be drawn from the work and other sources. A good literature review will be included in the dissertation with well documented work and results. In the viva the work will be explained well and questions answered well showing clear knowledge of what was carried out and what the results show. It will also be possible to create some insights though some further work would be required to fully strengthen the rigour of the findings. A good methodology will be shown while results will be clearly explained. Good technical and professional skills with some good research skills but good project organisation will be demonstrated.
50-59 Adequate (Pass)	Demonstrates a sufficiently met set of objectives with systematic understanding of the project and its purpose though would have had some assistance in their work. An awareness of the limitations of the knowledge gained will be shown though others would identify other points to consider. The dissertation would contain a modest literature review of suitable sources needed to contextualise the work just sufficient to meet the objectives and provide insight on what substantial further work could be carried out beyond. Results will show that the work reaches adequate conclusions, but may not fully tackle the complexity of the research. Some research methodology will be shown that may have been under the supervisor's guidance to lead to conclusive results. In the viva the candidate will answer the majority of questions fully but will show a modest level of command of the work carried out and how to tackle complex problems. Exhibits adequate technical and professional skills, with modest research skills and some planning and organisation.
40-49 Below Expectations (Fail)	Demonstrates an incomplete understanding of the project and has not sufficiently met the objectives with little awareness of the limitations of knowledge gained. The dissertation may have an incomplete literature review and lack of contextualisation of the work to develop it sufficiently and results may be technically unsound and lacking any degree of rigour. Such work will lead to overly simple conclusions without sufficient backing from other sources and work carried out. Research methodology may have flaws or not be fully justified. In the viva it may be that the candidate gives insufficient answers to questions and demonstrates an insufficient analysis of the results to show their meaning. Weak reporting and analysis of the results will be found not leading to any new insight. Does not exhibit adequate technical and professional skills, weak research skills with bad planning and organisation.
30-39 Well Below Expectations (Fail)	Demonstrates a weak understanding of the project with few objectives met that limitations of knowledge gained cannot be articulated. The dissertation will have an incomplete literature review and lack of contextualisation of the work with unsound results. Conclusions will be near impossible to reach with such work with little evidence of methodology being formed. In the viva the candidate would give weak answers to questions and demonstrate little analysis of the results. Shows limited technical and professional skills, almost no research skills with very bad planning and organisation.

20-29 Far Below Expectations (Fail)	Demonstrates a serious lack of understanding of the project with barely any objectives met unaware of any knowledge gained or its limitations. The dissertation will have a sparse literature review leading to no research narrative with near worthless results. In the viva the candidate would give almost no answers to questions of any substance with barely results achieved. Shows very bad technical and professional skills, no research skills and extremely bad planning and organisation.
10-19 Far Below Expectations (Fail)	Demonstrates very low effort and given barely any thought to the project with no objectives met. The dissertation will have minimal content of any literature review or results that lack any contextualisation or meaning. The viva would be very short with almost no useful discussion within it and will be more focused on where the project has failed to progress. Shows appalling technical and professional skills.
0-9 Very Far Below Expectations (Fail)	In such a case no attempt will have been made to complete the dissertation and no work may be delivered. A viva examination may not even take place as in such cases the candidate may have given up and there would be no work worthy of discussion. Rather any viva questions would concern why the work has barely started. No technical or professional skills will be in evidence.