MSc Software Development Dissertation Assessment Process

Assessment criteria
There are five assessment criteria for the MSc Software Development dissertation: student performance, project product, project process, evaluation and presentation of the final report.

Student Performance
Student performance is evaluated on the basis of their thoroughness and devotion to work, initiative, organisation, planning and progress, appreciation of project achievement (strengths, weaknesses, and limitations), and potential for further development and extension.

Project Product
The project product is evaluated on the basis of its functionality and overall quality, as well as on the basis of the supporting documentation produced. More specifically:
1. Design
   The design is evaluated on the appropriateness of design choices such as use of design patterns. How extensible the design is, and how easily it is understood as well as following best practice design principles. It should also demonstrate consideration of alternative designs and justify any choices made. Note this is at the architectural and detailed design level.
2. Implementation
   The implementation is evaluated on the basis of how well it meets the project requirements, the extent to which it incorporates the required functionality, its look and feel, and the organisation and quality of the code produced. This also incorporates project documentation. Documentation can include aspects such as code comments e.g. using JavaDoc, a user manual, and a maintenance guide. The documentation should be comprehensive, of sufficient quality and provide a useful user guide and maintenance documentation.
3. Verification and validation is evaluated based on the quality and appropriateness of the adopted testing strategy, the extent of testing carried out, and the extent to which product reliability and robustness are verified.

Project Process
The project process is evaluated on the extent to which a well-planned and well-organised approach has been followed throughout, on the extent to which alternatives have been considered, and on the extent to which a process informed by best practices has been followed throughout.

Project Results and Evaluation
The project process is evaluated on the extent to which the project product and process are appropriately and critically evaluated, and the appropriateness and quality of the experimental evaluation methodology identified, implemented, and presented.

Report Presentation
The report presentation is evaluated based on how well it presents and communicates the achievements and challenges of the project, as well as on its structure, readability, and language.

There is one marking scheme for all projects

Assessment criterion	%age of final dissertation mark
Product	
Implementation (including documentation as this indicates maintainability)	25%
Verification and Validation	10%
Product Total	**35%**
Process	
Methodology, analysis and documentation	15%
Design	10%

Process Total		**25%**
Results and Evaluation		20%
Report Presentation		10%
Student Performance		10%
		100%

The table below provides a guide to how marks will be awarded for each criterion against the possible degree outcomes for a Master's degree program.

%	70-100	60-69	50-59	< 50
Classification	**Distinction**	**Merit**	**Masters (pass)**	**Fail**
Student Performance	Student engaged with the project and supervisor in a highly professional manner. They were dedicated to their work and approached all aspects in a methodical and thorough manner. The student demonstrated that they were self-motivated and could critically evaluate their own work.	Student engaged with the project and supervisor in a mostly professional manner. They were generally dedicated to their work and approached many aspects in a methodical and thorough manner. The student demonstrated that they were self-motivated but could have taken more responsibility for the direction and evaluation of the project.	Student has engaged with the supervisor in a satisfactory manner. There is significant room for improvement. For example, they could seek the supervisor's advice more, arrive on time to meetings, initiate more discussion and take more responsibility for their performance.	Student's engagement with the supervisor is likely to have been limited or there was no engagement until close to final submission.
Project Product	The functionality of the product matches the requirements and the functionality demonstrates a high depth of understanding and capability as well as clear original thought. All software produced is of excellent quality – it is highly robust, reusable, secure, easily extendable, correct, well designed and follows best practice. It is accompanied by thorough and useful documentation such as a clear user guide and maintenance documentation.	The functionality of the product mostly matches the requirements and the functionality demonstrates some depth of understanding and capability. Any software produced is of very good quality – it is mostly robust, reusable, secure, easily extendable, correct, well designed and mostly follows best practice. However, there is room for improvement in these areas. It is accompanied by mostly thorough and useful documentation such as a user guide and maintenance documentation.	The functionality of the product mostly matches the requirements in places and the functionality demonstrates some understanding and capability. All software produced is of satisfactory quality. Whilst it is likely to be mostly functional, its quality could be substantially improved and it may only meet some requirements. It may be substantially improved in areas such as its robustness, design, reusability, security, extensibility, correctness and use of best practice. It is accompanied by some documentation such as a user guide and maintenance documentation.	The quality of the final product and supporting documentation produced is inadequate to demonstrate sufficient depth of understanding. The functionality is inadequate, and documentation is likely to be minimal.

%	70-100	60-69	50-59	< 50
Project Process	The depth of background study and analysis of the problem is outstanding – demonstrating high levels of independent critique and ideas. The project specification is appropriate, clear and the background study clearly informs the rest of the project. The architectural high level design and detailed design are of very high quality and choices made are well considered and justified. The testing strategy is appropriate, extensive and has resulted in reliability and robustness being well verified.	The depth of background study and analysis of the problem is comprehensive – demonstrating some evidence of independent critique and ideas. The project specification is appropriate, mostly clear and the background study informs the project in most areas. The architectural high level design and detailed design are of comprehensive quality and choices made are considered and justified. However, there was definite room for improvement in some areas. The testing strategy is appropriate, and has very good coverage but this could have been more extensive. The software has been verified to a comprehensive level.	The depth of background study and analysis of the problem is satisfactory. There is likely limited evidence of independent critique and ideas, but the main aspects have been covered. There is satisfactory evidence of independent critique and ideas. The project specification is appropriate, mostly clear and the background study informs the project in most areas. The architectural high level design and detailed design are of satisfactory quality and choices made are sometimes considered and justified. There is definite room for improvement in some areas. The testing strategy is mostly appropriate, and has satisfactory coverage but this could have been substantially more extensive. The software has been verified to a satisfactory level.	The depth of background study and analysis of the problem is very weak. There is no evidence of independent critique and ideas, and many main aspects of the background have been missed out or not covered to sufficient depth. The project specification is not appropriate or clear and the background study is unlikely to inform the project. The architectural high level design and detailed design are of weak quality and choices made are not considered or justified. The testing strategy is extremely weak or nonexistent. The software is unlikely to be verified or validated.
Project Results and Evaluation	The project results and evaluation are in-depth, appropriate and demonstrate critical and independent thought. The evaluation methodology identified is the best approach for the project and it has been implemented and presented to an outstanding standard. The evaluation is extremely thorough and the quality of the analysis is very high.	The project results and evaluation have some depth to them, but it is unlikely to be consistent. Some critical thought has been displayed, but this is likely to be limited. There are likely to be a few areas for improvement. The evaluation methodology identified is an appropriate approach for the project and it has been implemented and presented to a comprehensive standard. However, there are likely to be clear aspects for improvement. The evaluation is thorough in places and the quality of the analysis is very good. There are likely to be clear areas for improvement.	The project results and evaluation are of satisfactory depth, with one or two substantial clear aspects for improvement. The evaluation methodology identified is a satisfactory approach for the project and it has been implemented and presented to an acceptable standard. The evaluation is limited in its scope, and analysis leaves room for improvement.	The project results and evaluation are weak. A minimal attempt is likely. The evaluation and analysis are inadequate in scope and may not be appropriate for the project.

%	70-100	60-69	50-59	< 50
Report Presentation	The report communicates all appropriate aspects of the project in a clear and organised manner. It demonstrates a clear, critical and reflective thought process. It is also highly literate and very easy to read.	The report communicates most appropriate aspects of the project in a mostly clear and organised manner. It demonstrates a critical and reflective thought process. It is also literate and relatively easy to read. There are likely to be one or two larger aspects which could have been improved.	The report communicates most appropriate aspects of the project in a somewhat clear and organised manner. It demonstrates satisfactory critical and reflective thought processes. It is also mostly literate. There are clear areas for improvement.	The report is likely to have missed many appropriate aspects of the project and is likely to be very disorganised and unclear. It demonstrates no critical and reflective thought processes. It is often illiterate. There are many areas for substantial improvement.