

# GENG5012 Engineering Honours Research Project

## Part 2

### Final Report Mark Sheet

Name:	Date:
Marker:	

#### *Criteria*

Your report will be judged against the criteria listed below. The report represents the culmination of your final year honours research project, and counts for 50% of the grade. It is the main vehicle by which the quality of your project will be judged, and must accordingly demonstrate clearly the quality of your project. While it will be read by the markers in conjunction with your supervisor's report, it must be able to stand alone in reflecting your work.

<b>Scope</b>			<b>Mark</b>
The scope may be thought of as measuring the relative contribution of the project. The scope will be judged based on the material presented in the report, and should be encapsulated in the project summary (or abstract). An original contribution of significant breadth and depth will be required for high distinction.			
<b>/10</b>	0	Project scope not defined	0
	1	Narrow project scope – in the absence of justification in the report or in the supervisor's report	3.5
	2	Project scope of sufficient weight for a conference paper <u>or</u> a project scope of superior quality that has not been properly demonstrated by the report.	5.5
	3	Sufficient scope for publication in a peer reviewed journal or conference paper	7.5
	4	A significant original/novel contribution to the field, with a coverage warranting publication in an international peer reviewed journal.	9.0 +

<b>Project Body</b>	
Refer to guidelines for allocating marks for different project types on following pages	
<b>/70</b>	Specify the project type used to set the marking scale;

<b>Conclusions and Topics for Further Investigation</b>			<b>Mark</b>
These need to be supported by your results and discussion and relate back to the original scope of the report. Identifying areas for continuing investigation is one important way of demonstrating the depth of understanding.			
<b>/10</b>	0	Not present	0
	1	Little effort made to draw meaningful conclusions, and no significant suggestions for further research	3.5
	2	The conclusions presented are correct, but lack detail or are incomplete, and minimal attention has been paid to further investigation.	5.5
	3	Comprehensive and correct conclusions, with significant suggestions for further investigations	7.5
	4	Detailed, comprehensive, correct and insightful conclusions and suggestions for further investigation	9.0 +



## Project Body - Experimental Projects

<b>Introduction &amp; Literature Review</b>			
The introduction and literature review need to provide sufficient background for the reader to understand the context of your project, and must also demonstrate that you have a sound knowledge of the historical background and state of the art in your project area. Critical assessment of the strengths and weaknesses of the material reviewed is required for a high distinction.			Mark
<b>/20</b>	0	No contribution or totally ignored.	0
	1	Narrow coverage of the historical background and state of the art, with no demonstrated understanding of the literature.	7.0
	2	Broad coverage of historical background and state of the art showing a good understanding but little critical insight.	11.0
	3	Comprehensive, high level understanding of historical background and state of the art not supported by detailed critical analysis	15.0
	4	Comprehensive, superior understanding of the historical background and state of the art with sound critical analysis of the material covered.	18.0 +

<b>Project Process – Experimental Design</b>			
The report will need to demonstrate a sound process yielding significant, verifiable results and evidence of good project management.			Mark
<b>/15</b>	0	Unplanned, almost random process	0
	1	Poor methodology, prohibiting acquisition of useful results or thoughtful design	4.5
	2	Adequate methodology allowing some valid conclusions to be drawn	8.0
	3	Good process capable of yielding valid results but lacking in some respect e.g. adequate controls, failure to enable statistical analysis	11.5
	4	Superlative process yielding relevant results capable of deep interpretation or providing a significant advance in the state of the art.	13.0 +

<b>Results and Discussion</b>			
This is the meat of your report. All your results need to be presented in a way that is easy to understand, without reference to any other documents. The discussion needs to show your understanding of the meaning of your findings and the consequences of them for the field.			Mark
<b>/35</b>	0	No significant contribution or totally ignored.	0
	1	Unclear results accompanied by a discussion revealing a lack of understanding of the significance of the work done	12
	2	Basic description of the results, with discussion of only the most obvious implications	19
	3	Clear description of the results with discussion of most of the implications of the work	26
	4	Complete, clearly presented results, with detailed discussion showing insight into the significance of the work.	31+

## Project Body - Modelling Projects

<b>Introduction &amp; Literature Review</b>			<b>Mark</b>
The introduction and literature review need to provide sufficient background for the reader to understand the context of your project, and must also demonstrate that you have a sound knowledge of the historical background and state of the art in your project area. Critical assessment of the strengths and weaknesses of the material reviewed is required for a high distinction.			
<b>/20</b>	0	No contribution or totally ignored.	0
	1	Narrow coverage of the historical background and state of the art, with no demonstrated understanding of the literature.	7.0
	2	Broad coverage of historical background and state of the art showing a good understanding but little critical insight.	11.0
	3	Comprehensive, high level understanding of historical background and state of the art not supported by detailed critical analysis	15.0
	4	Comprehensive, superior understanding of the historical background and state of the art with sound critical analysis of the material covered.	18.0 +

<b>Project Process – Model Formulation</b>			<b>Mark</b>
The model formulation should be described in sufficient detail to permit readers to create equivalent models. This should include; A description of any software tools used and/or created; A description and/or diagram of the model configuration; Descriptions of the model input options selected (boundary conditions, constitutive behaviours etc)			
<b>/15</b>	0	No meaningful discussion of model formulation	0
	1	Poor model formulation, prohibiting the acquisition of valid or meaningful results	4.5
	2	Adequate model formulation, inadequately described in multiple respects (eg values of key parameters omitted, omission of boundary conditions).	8.0
	3	Good model capable of yielding valid results but the description lacking in some respect e.g. minor omissions in description, poor design of numerical experiment	11.5
	4	Superlative model yielding relevant results capable of deep interpretation or providing a significant advance in the state of the art.	13.0 +

<b>Results and Discussion</b>			<b>Mark</b>
This is the meat of your report. All your results need to be presented in a way that is easy to understand, without reference to any other documents. The discussion needs to show your understanding of the meaning of your findings and the consequences of them for the field.			
<b>/35</b>	0	No significant contribution or totally ignored.	0
	1	Unclear results accompanied by a discussion revealing a lack of understanding of the significance of the work done	12
	2	Basic description of the results, with discussion of only the most obvious implications	19
	3	Clear description of the results with discussion of most of the implications of the work	26
	4	Complete, clearly presented results, with detailed discussion showing insight into the significance of the work.	31+

## Project Body - Design (and Design & Build) Projects

<b>Introduction &amp; Literature Review</b>			<b>Mark</b>
The introduction and literature review need to provide sufficient background for the reader to understand the context of your project, and must also demonstrate that you have a sound knowledge of the historical background and state of the art in your project area. Critical assessment of the strengths and weaknesses of the material reviewed is required for a high distinction.			
<b>/20</b>	0	No contribution or totally ignored.	0
	1	Narrow coverage of the historical background and state of the art, with no demonstrated understanding of the literature.	7.0
	2	Broad coverage of historical background and state of the art showing a good understanding but little critical insight.	11.0
	3	Comprehensive, high level understanding of historical background and state of the art not supported by detailed critical analysis	15.0
	4	Comprehensive, superior understanding of the historical background and state of the art with sound critical analysis of the material covered.	18.0 +

<b>Project Process – Design Process</b>			<b>Mark</b>
The design process should be described in sufficient detail to permit readers to understand the approach used to arrive at the final design. This should include; A description of the constraints imposed on the design; Descriptions of any design tools employed; A discussion of the relevant code sections or requirements; A framework for evaluating the success of the resulting design.			
<b>/15</b>	0	No meaningful discussion of the design process	0
	1	Poor consideration of design process, prohibiting the development of a design likely to meet requirements	4.5
	2	Adequate discussion of design process, but with significant omissions (no attention to constraints, limited discussion of evaluation criteria).	8.0
	3	Good process capable of yielding a sound design but lacking in some respect e.g. minor omissions in description, significant criteria missed	11.5
	4	Superlative design process with no significant omissions or oversights.	13.0 +

<b>Final Design, Results and Discussion</b>			<b>Mark</b>
The final design should be described in detail. This would include providing drawings and schematic illustrations of the final design, material and component specifications, as appropriate. In design and build projects, the results of testing the design in practice or under controlled conditions should be presented.			
<b>/35</b>	0	No significant contribution or totally ignored.	0
	1	Design presented with limited discussion revealing a lack of understanding of the significance of the work done	12
	2	Basic description of design and results, with discussion of the most obvious implications	19
	3	Clear description of the design with discussion of most of the implications of the work	26
	4	Complete, clearly design and results, with detailed discussion showing insight into the significance of the work relative to the previous state of the art	31+

## Project Body - Engineering Practice or Business-Focused Projects

<b>Introduction &amp; Literature Review</b>			<b>Mark</b>
The introduction and literature review need to provide sufficient background for the reader to understand the context of your project, and must also demonstrate that you have a sound knowledge of the historical background and state of the art in your project area. Critical assessment of the strengths and weaknesses of the material reviewed is required for a high distinction.			
<b>/20</b>	0	No contribution or totally ignored.	0
	1	Narrow coverage of the historical background and state of the art, with no demonstrated understanding of the literature.	7.0
	2	Broad coverage of historical background and state of the art showing a good understanding but little critical insight.	11.0
	3	Comprehensive, high level understanding of historical background and state of the art not supported by detailed critical analysis	15.0
	4	Comprehensive, superior understanding of the historical background and state of the art with sound critical analysis of the material covered.	18.0 +

<b>Project Process</b>			<b>Mark</b>
The project process should be described in sufficient detail to permit readers to understand the approach/methodology used to assess the practice under review. This should include: The analysis/application of the relevant theoretical concepts, models and frameworks used in the research process; A description of the techniques used to gather data; Descriptions of any computational or statistical tools employed; A discussion of the relevant Australian or International Standards; A framework for evaluating the success of and proposed changes in practice.			
<b>/15</b>	0	No meaningful discussion of the process	0
	1	Poor consideration of process, prohibiting the development of practices likely to improve on the state of the art	4.5
	2	Adequate discussion of process, but with significant omissions (no attention to standards, limited discussion of data collection, etc.).	8.0
	3	Good process capable of soundly evaluating practice but lacking in some respect e.g. minor omissions in description, significant criteria missed	11.5
	4	Superlative process with no significant omissions or oversights.	13.0 +

<b>Results and Discussion</b>			<b>Mark</b>
This is the meat of your report. All your results need to be presented in a way that is easy to understand, without reference to any other documents. The discussion needs to show your understanding of the meaning of your findings and the consequences of them for the field.			
<b>/35</b>	0	No significant contribution or totally ignored.	0
	1	Unclear results accompanied by a discussion revealing a lack of understanding of the significance of the work done	12
	2	Basic description of the results, with discussion of only the most obvious implications	19
	3	Clear description of the results with discussion of most of the implications of the work	26
	4	Complete, clearly presented results, with detailed discussion showing insight into the significance of the work.	31+

## Projects Based Primarily on a Literature Review

<b>Introduction &amp; Literature Review</b>			<b>Mark</b>
The introduction and literature review need to provide sufficient background for the reader to understand the context of your project, and must also demonstrate that you have a sound knowledge of the historical background and state of the art in your project area. Critical assessment of the strengths and weaknesses of the material reviewed is required for a high distinction.			
<b>/40</b>	0	No contribution or totally ignored.	0
	1	Narrow coverage of the historical background and state of the art, with no demonstrated understanding of the literature.	14
	2	Broad coverage of historical background and state of the art showing a good understanding but little critical insight.	22
	3	Comprehensive, high level understanding of historical background and state of the art not supported by detailed critical analysis	30
	4	Comprehensive, superior understanding of the historical background and state of the art with sound critical analysis of the material covered.	36 +

<b>Discussion/Proposals for Future Action</b>			<b>Mark</b>
Even if a literature review forms the major part of the report, the students must go on to formulate some type of plan of action based on their analysis of the literature. This action may include the design of a future experiment, proposals for future analysis, financial analysis of options suggested by the literature review.			
<b>/30</b>	0	No significant contribution or totally ignored.	0
	1	Unclear proposals accompanied by a discussion revealing a lack of understanding of the significance of the literature	12
	2	Basic description of the proposed course of action, with discussion of only the most obvious implications	16.5
	3	Clear description of the proposed course of action with discussion of most of the implications of the work	22.5
	4	Significant, clearly presented, course of action, with detailed discussion showing insight into the significance of the work.	27 +