

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Major Project

ASSIGNMENT: Dissertation Report

STUDENT: Oscar Hardwick

DATE: 30/4/19

This section details the assessment criteria. The extent to which these are demonstrated by you determines your mark. The marks available for each criterion are shown. Lecturers will use the space provided to comment on the achievement of the task(s), including those areas in which you have performed well and areas that would benefit from development/improvement.

Common Assessment Criteria Applied	Marks available	Marks awarded	% Awarded
1. Research-informed Literature (Extent of research and/or own reading, selection of credible sources to support the aims of the project) Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions.			
60-69%: Inclusion of a wide range of research-informed literature, including sources retrieved independently. Selection of relevant and credible sources. Very good use of referencing conventions, consistently applied. <i>A good range of reading to support background knowledge of key concepts is evident through the embedded citations. A few citations are used in discussion of results, but your findings could have been more clearly compared to existing studies and design trends. Alternative reference models could have been researched in greater detail given the limitations identified of the MIRA geometries.</i>	10	6	60
2. Knowledge and Understanding of Subject (Ability to identify problems within, and technical direction of the project) Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.			
50-59%: Knowledge is accurate with a good understanding of the field of study. <i>A general knowledge of the key concepts is evident, with some good appreciation of methods applied - this could be deeper in places such as the importance of turbulence models and wall functions and how these specifically work. There appears to be some confusion over the air dam results expected - if you appreciate the underbody shaping of the MIRA geometries the results are not that surprising. The relevance of your variant study to automotive design is understood, but the detail of how your findings could influence designs could be explained further.</i>	10	5.5	55
3. Analysis (technical ability, analytical content and ability) Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence			
50-59%: Evidence of some logical, analytical thinking and synthesis. Can analyse new and/or abstract data and situations without guidance. An emerging awareness of different stances and the ability to use evidence to support the argument. Valid conclusions and recommendations where relevant. <i>You have conducted an interesting variant study, with results which appear accurate and agree with established views. Whilst you have conducted some basic postprocessing, you could have conducted further analysis of the flow regimes and potentially assessed certain geometrical parameters of the base geometry (e.g. diffuser angle). Your analysis of the air dam and rear spoiler is correct in terms of the results collated, but you could have reasoned why these trends occur with specific reference to the MIRA geometry characteristics and relevance of the devices to the notch vehicle. (The air dam is fighting against the venturi underfloor of the base geometry - not observed on most road cars, whilst the spoiler is positioned in a zone of separation and would generally not be that effective - this could have been tested on the fastback and the results would have been much more relevant). Some errors in results recognised but not investigated further.</i>	35	18.4	53
4. Practical Application and Deployment (progression/achievement, ability to draw conclusions and understand results) Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems.			
50-59%: A good and appropriate application of standard methods, materials, tools and/or techniques. Good appreciation of the context of the application, with some use of examples, where relevant. Whilst your CFD method shows some valid development through a calibration with the Ahmed body, further validation could have been conducted through the pressure tap data available and the use of the wind tunnel. You have conducted some good runs, but you could have studied a larger range of geometries in the time frame to also identify the devices and how they perform on the other variants. It would have also been good to see a proposed reference geometry given you have, correctly, identified some of the limitations of the MIRA geometry.	35	19.3	55
5. Skills for Professional Practice (Quality of presentation and success in communicating the aims and scope of the project) Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation.			
60-69%: Can communicate well, confidently and consistently in a suitable format. Can work very well as part of a team, with very good contribution to group activities. Work is coherent and fluent and is well structured and organised. <i>Generally a well presented report Oscar. Report would have benefitted from a general introduction. General presentation of results is basic, but effective in parts with comparison of contours.</i>	10	6.75	68
Assignment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate)		
	Up to one-week late		
	Over one week late		
	56	%	