

MARKING CRITERIA AND STUDENT FEEDBACK	
MODULE: Race Engineering	ASSIGNMENT: Aerodynamic Vehicle Testing and analysis (F3 Car)
STUDENT: Ehab Barsoum	DATE: 25/4/19

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	Percent Awarded
1. Research-informed Literature Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions. (e.g. Research of testing procedures, vehicle specifics, aerodynamic principles, testing methods etc)				%
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>You have conducted some good background reading, but you could have referenced a wider range of literature to support your knowledge of aerodynamics and vehicle handling</i> <i>You have only conducted minimal research into testing techniques</i> <i>Sources cited from a range of relevant sources. You could have demonstrated wider reading at this level. A wider selection of papers could have been cited to demonstrate advanced research.</i>		10	6	60
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline. (e.g. Choice of tests and explanation of underlying principles)				
40-49%: Evidence of basic knowledge and understanding of the relevant concepts and underlying principles. <i>You show a basic level on understanding of aerodynamics fundamentals and how these may effect vehicle performance in general.</i> <i>You have presented some of the theory behind the analysis techniques, but not all and you have not fully demonstrated you understand all of the methods implemented.</i> <i>General introduction and background is good. Some facts are incorrect, formula 3 mentioned for formula student. Methods applied could have been explained and justified in more detail. You have not recognised that speed should not effect coefficient of lift in theory. Some confusion evident with regards to boundary layers. You have not explained the understeer channel and calibration process.</i>		20	9.5	48
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence (e.g. Analysis of data, findings and use of MATH channels)				
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>Some basic analysis of the data obtained, but you could have looked in more detail at secondary interactions between variables</i> <i>Fundamental math channels present and correct. These could be explained in further detail</i> <i>Calculated coefficient of lift (approx. 60?!) appears to be incorrect, but isn't questioned Figure 5 (spreadsheet) is not readable. straight line results could have been analysed in more detail - plots of each setup and lift, drag and cop could have been presented. Silverstone laps not synchronised. Some comments indicate some confusion (it shouldn't be a surprise the aero loads are less when the speed was less) - you should compare all setups at the same point or speed. Conclusions could be clearer and more convincing if more concise. Conclusion is too generic - it doesn't relate to your work directly.</i>		40	23	58
4. Practical Application and Deployment Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems. (e.g. Test Plan, Use of Motec 12, conclusions drawn from analysis)				
60-69%: A very good application of a range of methods, materials, tools and/or techniques. Very good consideration of the context of the application, with perceptive use of examples, where relevant. Evidence of some innovation and creativity. <i>Test plan outlines feedback mechanism, but you could have explained the choice of tests and order of test. Results could be presented more clearly.</i> <i>Results presented well with a good use of the MOTEC analysis software evident</i>		20	12	60
5. Skills for Professional Practice Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation. (e.g. Technical report writing and presentation.)				
50-59%: Can communicate effectively in a suitable format, but may have minor errors. Can work effectively as part of a team, with clear contribution to group activities. Mostly coherent work and is in a suitable structure. <i>A good account of the work conducted. Structure shows some room for improvement to portray your ideas in a more succinct manner.</i> <i>Technical report formatting and presentation generally is very good. A couple of minor errors only.</i> <i>Document could be structured more clearly to build the argument of the effect of setup on the load distribution and handling balance. Current structure is a little chaotic. Tables should be labelled above, Figures below, both captioned. The borders added are not very professional and have compromised the size of images used. Some of the language used could be clearer and try not to use superfluous language..</i>		10	5.5	55
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)		56	%
	Up to one-week late			
	Over one week late			