

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Vehicle Dynamics	ASSIGNMENT: Steady state load transfer and aerodynamic loading
STUDENT: Michael Anderson	DATE: 25/3/19

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)			%
70-79%: 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 some excellent evidence through citations of supporting sources to underpin your knowledge and findings of the relationship between weight transfer, roll stiffness and handling balance.</i> <i>You have conducted some excellent background reading to support your knowledge of aerodynamics and aerodynamic testing techniques.</i> <i>Research to support testing standards knowledge cited. Research clearly informing your work through citations. Citations also used to support statements made regarding your results and observations.</i>	10	7.5	75
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)			
70-79%: Excellent knowledge and understanding of the main concepts and key theories. Clear awareness of challenges to established views and the limitations of the knowledge base. <i>You demonstrate an excellent depth of knowledge of aerodynamic principles and weight transfer as well as the effect of these on vehicle balance</i> <i>You also show an extensive appreciation for the analysis techniques and principles applied</i> <i>Good to see general assumptions clearly stated. Equations implemented clearly presented. Correction factor for theoretical steer could be more clearly understood - this appears to be dynamically calculated. Good to recognise testing standards. Aerodynamic drag calculation for coast down not presented.</i>	25	19.4	77.5
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)			
70-80%: Thoroughly logical work, supported by evaluated evidence. High quality analysis, developed independently or through effective collaboration. Ability to investigate contradictory information and identify reasons for contradictions. Strong, persuasive, conclusions, justifiable recommendations <i>Excellent analysis conducted of the relationships between roll stiffness, load transfer and handling balance. Conclusions drawn are clearly evidence based through the data and results are assessed critically.</i> <i>Excellent analysis conducted with evidence based conclusions drawn through fundamental assessment of the aerodynamic data obtained, to fully map the aerodynamic characteristics of the vehicle. You have critically assessed the results and their implication to the application.</i> <i>Excellent analysis and statements regarding the load transfers observed through actual and predicted methods. These results and observations have been presented clearly and concisely. Good to see check run implemented for coast down. Aerodynamic assessment is good with acknowledgment of device power and figure 13 is very good.</i>	25	20	80
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 I2, conclusions drawn from analysis)			
70-79%: An advanced application of a range of methods, materials, tools and/or techniques. The context of the application is well considered, with extensive use of relevant examples. Application and deployment extend beyond established conventions. Innovation and creativity evident throughout. <i>Excellent use of math channels which are well defined using the tools available.</i> <i>Presentation of results and analysis is excellent. You have clearly thought about how you will present your findings in a clear and concise manner. You have used advanced techniques available to fully support your conclusions</i> <i>Very clear and focussed report Michael. Whilst you could have applied some more advanced methods of data presentation, the plots you have included are well designed and summarise the relationships investigated well. This is a good piece of work Michael. Well done</i>	25	18.8	75
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.)			
80-100%: Can communicate with an exceptionally high level of professionalism. Can work exceptionally well and professionally within a team, showing advanced leadership skills. Work is exceptionally coherent, very fluent and is presented professionally. <i>A very professional document which has an excellent structure and is a coherent account of the investigation conducted.</i> <i>Technical report formatting and presentation is excellent.</i> ..	15	12.4	82.5
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		
	78	%	