

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Vehicle Dynamics	ASSIGNMENT: Steady state load transfer and aerodynamic loading
STUDENT: Joshua Bass	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>Some good citations to support your understanding of the links between handling balance, weight transfer distribution and roll stiffness distribution.</i> <i>You have conducted some good background reading regarding aerodynamics and how the aerodynamic performance could be mapped, but you could have referenced a wider range of literature to support this.</i> <i>Good to see multiple methods cited to support methodology. Try not to continually use "this is validated by" after paragraphs, embed your citations. Good to see attempts to use citations to support conclusions.</i>	10	7	70
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)			
60-69%: Knowledge is extensive. Exhibits understanding of the breadth and depth of established views. <i>You show a good level on understanding of aerodynamics and load transfer, and how these may effect vehicle performance in general.</i> <i>You demonstrate some understanding of the methods and techniques applied in the data analysis to characterise the performance of the vehicle.</i> <i>Equations presented, but you should use equation editor to present these in a clearer form. Some good understanding of load distribution and handling evident, although explanations of some of your conclusions not fully supported by results. Good base understanding of aero principles, but graph from research is a spoiler not a rear wing. Coast down method clearly presented. Assumptions listed but impact on results not obviously appreciated.</i>	25	15.6	62.5
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)			
60-69%: Sound, logical, analytical thinking; synthesis and evaluation. Ability to devise and sustain persuasive arguments, and to review the reliability, validity & significance of evidence. Ability to communicate ideas and evidence accurately and convincingly. Sound, convincing conclusions / recommendations. <i>A good attempt at assessing the relationships between the vehicle setup, resulting load distributions and vehicle handling balance. Some good conclusions drawn, but you could have assessed your data more critically.</i> <i>Generally you have conducted some good analysis of the data obtained to draw some conclusions on the vehicles aerodynamic performance. Conclusions could be more persuasive with further analysis of trends</i> <i>MN comparison graphs are good. Figure7 shows very good correlation, although this is not supported by the previous graph? Some discrepancies noted but not interrogated to explain .It is not clear how you predicted understeer for figures 10 and 11. Some unexpected trends identified but not explained</i>	25	15.6	62.5
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 Motes I2, 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>Required Math channels are present and appear to be generally defined correctly.</i> <i>Results presented well with a good use of presentation techniques to support your discussions and conclusions.</i> <i>Math channels generally look good, a little repetition and could be a little tidier and more clearly defined/named. Evidence setup sheet implemented correctly Graphs for aero results could be clearer - they are too small and some results hidden.</i>	25	15.6	62.5
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.)			
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>A very good account of the investigation conducted, could be structured a little more professionally in places.</i> <i>Technical report guidelines only generally followed. You need to refer to the guidelines and make sure you present accordingly in future.</i> <i>Good structure, but sections and subsections should be numbered. Tables should be labelled as tables and captioned above. Make sure all graphs are clear when viewed in the document in future. Some sentences do not make sense - proof read your work.</i>	15	9	60
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		
	63	%	