

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Vehicle Dynamics	ASSIGNMENT: Steady state load transfer and aerodynamic loading
STUDENT: Zhangwei Guo	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)			%
30-39%: Poor evidence of reading and/or of reliance on inappropriate sources, and/or indiscriminate use of sources. Referencing conventions used inconsistently. <i>Little research into the relationships between weight transfer, roll stiffness distribution and handling balance.</i> <i>You should have reviewed a much larger range of sources to support your understanding of the principles being investigated by this report.</i> <i>Although you have included some references in the bibliography, you have not cited these in the report. At this level we would expect your research to inform your understanding, methods and conclusions. Citations could have been used to support or contradict your findings and compare with established views.</i>	10	3	30
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)			
50-59%: Knowledge is accurate with a good understanding of the field of study. <i>You demonstrate a basic understanding of aerodynamic principles and load transfer and you could have more clearly indicated how you would have expected these to influence the vehicle performance</i> <i>You demonstrate some good understanding of the methods and techniques applied in the data analysis to characterise the performance of the vehicle.</i> <i>Equations implemented presented with basic explanation demonstrating a good understanding of these. A general appreciation for the data and relationships observed is evident, but the detailed analysis could be related back to the application and how this may effect the vehicle balance.</i>	25	13.8	55
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>Some basic analysis of the data obtained characterising load transfer with respect to setup. You should have more critically assessed the theories applied and used the data to devise more persuasive arguments.</i> <i>Some basic analysis of the aerodynamic data obtained, but you could have looked in more detail at relationships between your setup and resulting aerodynamic loads and distribution. Some illogical or interesting trends not fully investigated</i> <i>Discrepancy between measured and calculated roll angle not discussed in detail - why might this be (tyre deflection). Results obtained for load transfer distribution (magic number) versus roll stiffness appear correct as these were calculated in excel? General comments made show trends agree - you could have explained possible reasons why actual over predicts compared to predicted. Figure 12 not legible. Some comments are generic and aren't clearly supported by evidence.</i>	25	15	60
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)			
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. <i>An attempt to include the required math channels but these are incomplete and/or incorrectly defined which has led to potential errors in your analysis. These have not been fully presented in the document (can't fully review)</i> <i>Basic results presentation</i>	25	13.8	55
<i>Evidence setup sheet implemented correctly. Some errors in math channels - tire pressure is used on where it should be tire load. Actual WT total incorrectly defined (this should be based on wheel loads). Some tables not clear - figure 8, what are the rows?</i>			
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.)			
40-49%: Can communicate in a suitable format but with some room for improvement. Can work as part of a team, but with limited involvement in group activities. Work lacks coherence in places and could be better structured. <i>A satisfactory report, but structure and content show room for improvement.</i> <i>Only limited evidence that the report is presented as a technical report. Refer to the technical report guidelines to improve your future technical documents.</i> <i>Report structure and presentation shows room for improvement. A clear structure using subsections would help the reader. Sections should be numbered, figures captioned. Good abstract.</i>	15	6.75	45
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		52 %
	Over one week late		