

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Race Engineering	ASSIGNMENT: Aerodynamic Data
STUDENT: Christos Zois	

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)				%					
50-59%: Inclusion of a range of research-informed literature, including sources retrieved independently. Referencing conventions mostly 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>A small range of relevant references are included, but a wider ranges of sources could have been reviewed and used to support your methods and conclusions and interrogate established views. Some more of your statements could have been supported by citations embedded in your discussions through additional reading. Citations could have been used further to support your analysis conclusions.</i>		10	5.8	58					
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 fundamentals and how these may effect vehicle performance in general.</i> <i>You have presented the theory behind the analysis techniques, but limited understanding of these demonstrated</i> <i>Calculation methods presented but could be explained further. For example the correction factor for the theoretical steer channel is not explained clearly. You demonstrate a good understanding of aerodynamic principles through discussion some of the trends identified. A little more analysis could have demonstrated a greater depth of understanding</i>		20	12.5	63					
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%: Ability to analyse, synthesise, evaluate, think, 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>Generally you have conducted some good analysis of the data obtained to draw some conclusions of the vehicle aerodynamic characteristics. Conclusions could be more persuasive with a deeper analysis</i> <i>Fundamental math channels present with minor error. These could be explained in further detail</i> <i>There is an error in the math channel syntax presented. You have subtracted the longitudinal weight transfer from both front and rear axles, one of these should be added. This has led to some errors in the calculated load distributions. Straightline test results could have been presented graphically. The results obtained are presented and some reasonable conclusions are drawn. Sensitivity of each setup relative to dynamic vehicle attitude could have been evaluated. The relationship between the vehicle handling balance and the aerodynamic setup and loads could have been more clearly defined.</i>		35	20.3	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 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>Test plan is presented in report, but the justification of the circuit choice, methods and limitations of test methods not identified clearly - this could have been achieved with further citations to established methods. Good to see clear driver instructions.</i> <i>Conclusions drawn from data are generally valid, but further analysis or comparison with established views would have made these more convincing. Lacking final conclusion summarising performance of wings and influence of static vehicle attitude.</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.)									
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 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>Christos, your report structure is generally ok, but formatting is a little inconsistent and presentation of graphs and results could be clearer with more thought.</i>		15	9.75	65					
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) <table><tr><td>Up to one-week late</td><td></td></tr><tr><td>Over one week late</td><td></td></tr></table>		Up to one-week late		Over one week late		60	%
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