

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Race Engineering	ASSIGNMENT: Aerodynamic Data
STUDENT: John Hughes	

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 conducted some excellent background reading to support your knowledge and analysis of aerodynamic fundamentals and the effect on the handling balance</i> <i>You have conducted some good research into aerodynamic testing methodologies and used these to inform your methodology</i> <i>A good range of relevant sources cited. Excellent use of research embedded throughout your work to support statements and inform methodology as well as assess results. You could have reviewed a wider range of literature to support your aerodynamic mapping methods.</i>	10	7.7	77
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 the aerodynamic principles and the effect of these on the handling of the vehicle</i> <i>You also show an extensive appreciation for the analysis techniques and principles applied</i> <i>Your discussion of methods and aerodynamic assessment demonstrates an excellent understanding of the underlying principles. You clearly understand the links between static setups, dynamic response due to attitude changes and the impact this would have on handling. A clear understanding of aerodynamic principles demonstrated.</i>	20	17	85
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 with evidence based conclusions drawn through fundamental assessment of the data obtained.</i> <i>An advanced use of well posed Math Channels, constants and setup sheets.</i> <i>Generally you have conducted detailed analysis of the data obtained and this is presented very well. Some of the observed traits could have been further explored. For example, you could have discussed that the simulator results don't show any sign of stall of wings. Vehicle response rate not always noted (increased turn in response with negative rake)</i>	35	27.3	78
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>Clear test plan which was well run and collected all required data. Good use of motec to present results, but you could have used alternative plots to help demonstrate interactions between variables.</i> <i>Some good discussion of traces with correct observations. Your conclusion is a little general, you could have concluded the impact of wings, ride height and rake on the vehicle performance and hypothesised an optimum setup based on findings.</i>	20	15	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.)			
70-79%: Can communicate professionally and, confidently in a suitable format. Can work professionally within a team, showing leadership skills as appropriate, managing conflict and meeting obligations. Work is 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> <i>John, this is an excellent report which is well written. You should start each chapter on a new page and equations should be numbered, but other than that the report is excellent.</i>	15	11.7	78
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		
	79	%	