

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Simulation and Modelling	ASSIGNMENT: CFD
STUDENT: Aaron Hillam	DATE: 13/5/19

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.

NOTE: Alternative geometry and experimental data supplied as previous submission was development of Ahmed simulation.

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.			%
50-59%: Engagement with an appropriate range of research-informed literature, including sources retrieved independently. Some over-reliance on texts. Referencing may show minor inaccuracies or inconsistencies. <i>You have cited some relevant sources, however it is not clear how Lanfrit supports the purpose of your specific report (first sentence of report). Again Lanfrit doesn't provide results for the MIRA geometry or any details on the MIRA testing as claimed. It is clear however your understanding and some modelling decisions have been influenced by supporting literature.</i>	10	5.25	53
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.			
60-69%: Knowledge has a well-defined focus, which is reasonably extensive, coherent and detailed, with a critical awareness of current problems and/or new insights. Exhibits good understanding of the breadth and depth of contemporary and established views, and the work is, at least in part, well-informed by current research and scholarship. <i>Some justification of modelling decisions evident. You could have explained how you modelled 10mm tyre deflection. Good to see domain setup influenced by experimental method. Good to see the initial results reviewed and used to inform domain resize - you could have explained this though (no significant vel / pressure gradients)</i>	25	15	60
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence			
50-59%: Some critical evaluation/ critique of current research and methodologies, though slightly underdeveloped in places. Proposes adequate but limited new hypotheses, where relevant. Can deal with complex issues but not fully systematically or creatively. Ability to make judgements based on data (that may be incomplete) but with some tendency to assert/state opinion rather than argue on the basis of reason and evidence. <i>Good to see initial assessment of results. Drag results show clear discrepancies with experimental data but these are not discussed. I think you may have not updated the meshes or reinitialised correctly as the mesh algorithms and prism layers and will have an impact on the results - this should have been questioned and has lead to some errors in your simulation decisions, however based on the results you present you have applied reasonable logic. You could have overlaid the pressure distributions for direct comparison. Good to see flow characteristics identified.</i>	30	17.3	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.			
50-59%: An appropriate application of standard methods, materials, tools and/or techniques. Clear appreciation of the context of the application. Mainly consistent, accurate and logical application of theory to practice, making appropriate links between the two. Can identify problems and propose mostly appropriate solutions in complex and unpredictable contexts, with elements of originality. <i>Some good post processing used. Modelling decisions and investigations carried out are sound, although there appears to be an error in implementation as results should be changing much more significantly with the input variations tested.</i>	25	13.1	53
5. Skills for Professional Practice Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation.			
60-69%: Can communicate well, confidently and consistently in a suitable format. Work is coherent, fluent, well-structured and organised. Can work very well autonomously and/or as part of a team, with a good contribution to group activities. Demonstrates comprehensive professional, postgraduate employment skills. <i>Generally a reasonable well presented report, however sections should be numbered and equations should be presented on a new line, not embedded within text. Refer to the technical report guidelines.</i>	10	6.5	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)		
	Up to one-week late		57
	Over one week late		%