

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Advanced Computational Methods CFD

ASSIGNMENT: CFD : MIRA Car

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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. Background research into CFD techniques and models)				%
40-49%: References to a limited range of mostly relevant sources. Some omissions and minor errors. Referencing conventions evident though not always applied consistently. <i>You have conducted some basic reading to support your understanding of the CFD process, but a wider range of sources could have been used to inform your methodology with respect to the investigations application.</i> <i>Little or no research of context of CFD study. This would have helped critique your results and draw firmer conclusions.</i> <i>You have clearly conducted some limited research, but you have not included a reference list</i>		10	4	40
2. Knowledge and Understanding of Subject Extent of knowledge and understanding of concepts and underlying principles associated with the discipline. (e.g. Justification of initial mesh strategy, mesh refinements and geometry based on comparisons with windtunnel data)				
40-49%: Evidence of basic knowledge and understanding of the relevant concepts and underlying principles. <i>You have create a basic mesh but limited understanding demonstrated through the development of the model.</i> <i>The initial mesh and the mesh development strategy could be more clearly informed through the analysis of the results.</i> <i>You clearly have a base understanding of the CFD process through your development of the base model. However some modelling decisions not justified and you have not clearly defined your model development strategy. Boundary conditions could have been justified.</i>		25	11.9	48
3. Analysis Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence (e.g. Analysis of results to help create a validated base case, evaluation of methods used, analysis of aerodynamic device)				
30-39%: Some evidence of analytical intellectual skills, but for the most part descriptive. Ideas/findings sometimes illogical and contradictory. Generalised statements made with scant evidence. Conclusions lack relevance. <i>Some analysis conducted of results to assess your model, but for the most part superficial. You could have critically evaluated the results in much more detail, highlighting discrepancies between the simulation and emperical data, reasoning why these may have occurred.</i> <i>Some of the modelling parameters have been investigated but you have not assessed all the parameters mentioned in the brief. The investigations conducted have not been used to clearly develop your method</i> <i>You did not assess trubulence models, domain size or mesh independence. Limited comparison evident of results compared to emperical data to assess your results.</i>		30	9.75	33
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. Methodology, use of post processor, selection of component design parameters)				
40-49%: An adequate awareness and mostly appropriate application of well established methods, materials, tools and/or techniques. Basic appreciation of the context of the application. <i>You demonstrate that you can develop a working simulation using the software. Some of the simulation setup could be improved.</i> <i>Basic use of the post processor only. You could have made more use of the visulisation techniques in the post processor to assess and present your results.</i> <i>You should have used postprocessing to greater effect to asses the results obtained and the methods employed.</i>		20	9	45
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.)				
30-39%: Media is poorly designed and/or not suitable for the audience. Poor independent or collaborative initiative. Work lacks structure, organisation, and/or coherence <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 formatting and presentation shows room for improvement. You should not screen shot videos of youtube into your report and you need to refer to the technical report guidelines.</i>		15	5.25	35
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		
		39.9	%	