

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: Simulation and Modelling

ASSIGNMENT: CFD

STUDENT: Robert Ogden

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>Some relevant references cited, but a wider range should have been reviewed and used to support your applied methods, explanations and conclusions through specific citations (none were included in your report although some reference to generic sources). References should be listed in alphabetical order.</i>	10	5	50
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>Good understanding of model requirements, with justification of symmetry assumptions and explanation of mesh strategy. You didn't explained the choice of 40 m/s. You should have also introduced the geometries in more detail. Your method is outlined reasonably clearly. Domain size discussion is also good. You could have outlined some of the limitations of your approach and sources of error.</i>	25	16.3	65
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>The main issue with your work is the lack of experimental data for estate geometry which means your model is difficult to validate. Some attempt to do so with reference to the Ahmed case but results not fully presented. You should have approached by benchmarking the MIRA notch geometry and then using the validated model to predict the estate results. You have not presented mesh, domain and turbulence model studies in enough detail to give confidence your model is well posed. Prism layers not discussed - not clear you implemented these.</i>	30	15.8	53
4. Practical Application and Deployment Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems.			
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 insights. Can identify problems and propose appropriate solutions in complex and unpredictable contexts. Evidence of originality and creativity. <i>A reasonable mesh refinement strategy is in place with some basic post processing of results. Prism layers should have been investigated. Modelling decisions for the most part sound.</i>	25	15.6	63
5. Skills for Professional Practice Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation.			
50-59%: Can communicate effectively in a suitable format, but may have minor errors. Mostly coherent, organised work, in a suitable structure and is for the most part clearly expressed. Can work effectively independently and/or as part of a team, with clear contribution to group activities. Demonstrates the skills required in professional, postgraduate employment, with some areas of strength and some of minor weakness. <i>Report is poorly structured. You should present your work as a professional account in a report which follows the technical report guidelines. This includes using numbered sections to structure your work appropriately. However the work generally reads well.</i>	10	5.25	53
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		
	58	%	