

MARKING CRITERIA AND STUDENT FEEDBACK

MODULE: ACDB5007 - Computer Aided Engineering
STUDENT: Pippa Shay

ASSIGNMENT: Report
DATE: 20/05/2026

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	% awarded
1. Engagement with Literature Skills Use of literature sources in support of you discussions throughout the report.			
50-59%: Inclusion of a range of research-informed literature, including sources retrieved independently. Referencing conventions mostly consistently applied. <i>The report includes some relevant sources to support background concepts in CAE and fluid dynamics. However, the use of literature is limited and largely descriptive, with sources primarily used to explain general concepts rather than to support or evaluate the results of the simulations. There is little integration of literature into the analysis sections.</i>	10	5.7	57
2. Knowledge and Understanding Skills Discussion and demonstration of the underlying principles relating to stress/strain calculations and CAE software. Analytical and computational validation could be an effective way of critically appraising these areas.			
60-69%: Knowledge is extensive. Exhibits understanding of the breadth and depth of established views. <i>A basic understanding of CAE processes and fluid dynamics is demonstrated. Key concepts such as meshing, convergence and Bernoulli's equation are described clearly. However, the discussion is largely general and descriptive, with limited application of theory to interpret the simulation results in depth.</i>	30	18	60
3. Cognitive and Intellectual Skills Use of iterative design techniques, based on analysis of prior results to inform future designs. Analysis, interpretation, and review of results to determine the structural limitations of components.			
50-59%: Evidence of some logical, analytical thinking and synthesis. Can analyse new and/or abstract data and situations without guidance. An emerging awareness of different stances and the ability to use evidence to support the argument. Valid conclusions and recommendations where relevant. <i>The report shows limited analytical depth. While simulation results are presented and described, there is little critical evaluation of their significance or reliability. Relationships between variables are identified but not explored in detail, and there is minimal interrogation of discrepancies or sources of error. Greater focus on analysis and critical reasoning is needed to improve this area.</i>	30	15.6	52
4. Practical Application Skills Use of skills to generate a suitable assembly, with accurate boundary conditions applied. Suitable application of methods to perform structural analysis on components and generate representative results.			
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>The student demonstrates the ability to set up and run multiple simulations within ANSYS Fluent, including varying mesh size and iteration settings. There is some awareness of issues such as convergence and incorrect setup. However, the investigation lacks a structured approach, and the mesh study is not carried out in a rigorous or systematic way.</i>	20	12.4	62
5. Transferable Skills for Life and Professional Practice Quality and presentation of written report.			
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>The report is generally structured in a logical way, and the inclusion of figures supports the explanation of results. However, the writing is often repetitive and overly descriptive, which reduces clarity. Greater conciseness and a stronger focus on analysis would improve communication.</i>	10	6.4	64
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 %