

Assessment Matrix for MSc Individual Projects (applied from Academic Year 2020-21 onwards)



1. Quality of Technical Work and Continuous Assessment of Student Performance (worth 20%)

(To be completed by project or placement supervisor only.)

Grade Range (Highest to Lowest)	A1, A2, A3, A4, A5	B1, B2, B3	C1, C2, C3	D1, D2, D3	E1, E2, E3	F1, F2, F3	G1, G2, H
Descriptor	Excellent	Very Good	Good	Satisfactory	Weak	Poor	G: Very Poor H: No Attainment
Planning (Weighting = 1)	High-quality planning, made excellent use of time and resources.	Very well-planned project, only occasional evidence of deficiencies.	Mostly well planned, but some deficiencies observed.	Planning was generally satisfactory, although it could have been better in several areas.	Poor planning, or not keeping to the plan, tended to make inefficient use of time and resources.	A disorganised project, often lacking focus and direction.	Little or no evidence of any planning.
Initiative (Weighting = 1)	Major contributions to both the technical content and overall project direction; took ownership of the project.	Regularly overcame problems and made strategic decisions with minimum reliance on supervisor.	Student required supervision only to overcome specific technical problems or make key decisions on project direction.	Student required assistance but performed some technical work and made some overall project decisions independently.	Student required continual detailed guidance from supervisor on the work and direction of the project.	Student relied entirely on supervisor and contributed little to project technical decisions or overall direction.	Student contributed very little or nothing to the project.
Professional Conduct (Weighting = 1)	Student integrated fully into the engineering environment, contributed widely as a valued peer, and espoused broader ethical values in the project work.	Student worked very well within the engineering environment (with rare difficulties) and understood broader ethical project aspects.	Interaction with colleagues, where appropriate, was good. Practiced professional behaviour and noted broader ethical aspects.	Interaction with colleagues, where appropriate, was satisfactory. There was evidence of understanding professional behaviour.	Student did not integrate into the engineering environment and had difficulty in operating with colleagues on a day-to-day basis.	The student found operating professionally to be challenging, with respect to colleagues and to wider ethical and safety aspects of the project	The student did not operate at any meaningful level in a professional environment
Technical Quality of Work (Weighting = 2)	Excellent work of publishable quality with comprehensive analyses and insights. A creative, rigorous treatment of a complex problem.	Very good quality work with only minor failings, and clear insights and judgement for a complex multi-faceted engineering problem.	Competent work, trustworthy results, and a good level of insight into a complex engineering problem supported by suitable analyses.	Satisfactory solution of a complex technical or design problem involving analyses or creative design choices; some deficiencies in understanding.	Some work of limited technical quality, but only in one aspect of a complex problem. Attainment at a very modest level.	Very little evidence of master's level work and results technically dubious.	No output of any value.

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2. Dissertation (worth 60%)

(To be completed by James Watt School of Engineering staff only.)

Grade Range (Highest to Lowest)	A1, A2, A3, A4, A5	B1, B2, B3	C1, C2, C3	D1, D2, D3	E1, E2, E3	F1, F2, F3	G1, G2, H
Descriptor	Excellent	Very Good	Good	Satisfactory	Weak	Poor	G: Very Poor H: No Attainment
Writing (Weighting = 1)	Exceptionally clear, precise, and concise English. Excellent spelling and grammar, few typos.	Clear and well written, easy to understand, and mostly free of errors.	Most of the text is clear and easily understood. There are some issues with grammar and spelling.	The text can be understood, but some elements are not entirely clear. A sizeable volume of errors is noticeable.	Hard to understand much of the text. Significant spelling errors and grammatical flaws.	The volume and nature of the grammatical errors, combined with poor writing makes this report difficult to read.	Unintelligible. Impossible to read due to exceptionally poor use of English.
Presentation (Weighting = 1)	Professional presentation. Figures created by student enlighten and are integral to the narrative flow.	Clear and consistent presentation which is easy to read. Most figures are clear and well-presented and customised to establish the narrative.	Minor flaws in the presentation and clarity of the figures. Typically, some figures from web which are not tailored to the narrative.	Basic presentational errors. Figures provide relevant information but are often sourced from web and do not support the narrative.	Significant flaws in the presentation detracting from the report. Most figures from web with loose connection to main text and poor labelling / captioning.	A substantial proportion of figures from web that are unrelated to the narrative. Results cannot be understood due to poor labelling / captioning.	A messy report. Figures do not match the narrative and results are unclear.
Literature (Weighting = 1)	Exemplary range of technical and wider ranging sources used and discussed in depth, indicating broad and critical background reading.	An appropriate range of relevant sources used and evaluated, indicating substantial background reading and consideration of the wider context of the problem.	References used and discussed indicate a good level of core and wider background reading.	Enough relevant references are used and discussed to indicate some technical and wider reading. Typically, weak referencing.	Too few relevant sources, limited to technical area, indicating insufficient wider reading. Perhaps over-reliance on doubtful sources.	Only a few references used and discussed, and many are irrelevant. Little evidence of background reading.	Very few (or no) references used or discussed. No evidence of any background reading.
Technical / Design Narrative (Weighting = 3)	Authoritative account of the novel solution of a complex problem, supported by critical evaluation at each stage of the design / technical analysis.	A lucid, coherent narrative, dictated by significant analyses, indicates a very good grasp and novel solution of a difficult technical problem.	The narrative is clear and shows how good technical or design choices followed from key technical analyses.	The narrative is of reasonable technical depth, indicates how analyses informed project direction, and shows satisfactory understanding.	Limited explanation of the technical work / design choices. Little or trivial technical analysis. Shortfalls of understanding in key areas.	Muddled discussion of technical work or results. Superficial understanding of the technical / design problem.	The lack of quality of the technical narrative suggests that the student has no real understanding of the problem.
Wider Context and Conclusions (Weighting = 1)	Text and conclusions express authoritative grasp of project results and notable insights as to their implications for engineering / society.	Conclusions integrate well with key themes of the text, critically assessing the wider relevance to current and future societal needs.	Text and conclusions show good insight into the technical results of the project, and their relation to the wider engineering and societal context.	The text notes a wider engineering and societal context and the conclusions make some relevant points on these.	Conclusions omit considered discussion of technical aspects, wider engineering implications, and societal impact.	Conclusions perfunctory.	No attempt at any point in the text to draw conclusions or put the work into a wider context.

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3. Poster Presentation (worth 20%)

(To be completed by James Watt School of Engineering staff only.)

Grade Range (Highest to Lowest)	A1, A2, A3, A4, A5	B1, B2, B3	C1, C2, C3	D1, D2, D3	E1, E2, E3	F1, F2, F3	G1, G2, H
Descriptor	Excellent	Very Good	Good	Satisfactory	Weak	Poor	G: Very Poor H: No Attainment
Introductory Description (Weighting = 1)	<i>Extremely clear and well-presented description of the project. Easy to follow.</i>	<i>Very clear description of the project but perhaps a few minor flaws.</i>	<i>Clear description of the project but some flaws in presentation.</i>	<i>Overall a reasonable description, but there are issues regarding clarity.</i>	<i>Unclear description made understanding the purpose of the project difficult.</i>	<i>Very unclear description of the project. Very difficult to understand the purpose of the project.</i>	<i>No clarity. Too many basic errors. Project description too difficult to follow.</i>
Presentation of Content (Weighting = 1)	<i>Exceptionally clear presentation of poster content. Simple illustrations, large enough font, not too many words. A professional poster.</i>	<i>Clear presentation but perhaps the occasional flaw (font size, colour scheme etc), but overall an impressive poster.</i>	<i>There may be a number of errors in presentation but overall, still clear and flaws do not detract significantly from content.</i>	<i>Consistent errors in presentation but not of a significant nature. A reasonable effort but flaws detract.</i>	<i>Significantly flawed poster. Basic errors such as small font size, too much content on poster, illustrations too confusing or unclear.</i>	<i>Not only is the presentation of poster poor, but it makes it difficult to follow argument.</i>	<i>Very poor poster, basic errors in presentation throughout. Impossible to follow technical argument.</i>
Poster Layout (Weighting = 1)	<i>Structure of the poster makes understanding the technical arguments exceptionally clear.</i>	<i>A very well-structured poster with everything where it should be to provide clarity</i>	<i>Overall a well-structured poster but perhaps one or two items are in the wrong position.</i>	<i>Some elements of the poster are not clear as the structure is slightly confused.</i>	<i>A badly structured poster giving a confused picture of the project making it difficult to follow the arguments.</i>	<i>Although there is some structure to the poster it is very confused, and it is almost impossible to follow.</i>	<i>No discernible attempt at a logical poster layout.</i>
Technical Content (Weighting = 2)	<i>There is a well-judged amount of high-level technical content on the poster giving an excellent account of a challenging technical task.</i>	<i>The poster has a very good level of technical content, clearly expressed, with only a small amount of superfluous information.</i>	<i>Overall, the content is sufficient to give the viewer a good account of the technical work undertaken.</i>	<i>There is some irrelevant non-pertinent material, but overall, the technical content is satisfactory.</i>	<i>The poster has only limited technical content with too much general background information.</i>	<i>The technical content is low in terms of level and quantity.</i>	<i>Little or no relevant technical content evident.</i>
Response to Questions (Weighting = 2)	<i>Answered all questions clearly and confidently. Gave the impression of having an excellent grasp of the subject.</i>	<i>Answered all questions competently. Has clearly developed a very good understanding of the subject.</i>	<i>Answered most questions well enough to conclude that the student has a developed a good understanding of the subject.</i>	<i>Gave some good answers but also some poor ones. Evidence of reasonable understanding of the subject.</i>	<i>Answered the majority of the questions poorly suggesting a lack of knowledge in the subject.</i>	<i>Gave some superficial answers but appears to have very little understanding of the subject.</i>	<i>Unable to give any sort of competent answer to any question.</i>