



Materials Design and Technology ATAR course practical (portfolio) examination marking key

2024

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Materials Design and Technology ATAR course practical (portfolio) marking key

100% (45 marks)

Description	Marks
Criterion 1: Statement of intent	
Provides detailed descriptions of the design problem or situation to be solved using all client requirements, considerations and constraints, design fundamentals and performance criteria.	5
Clearly describes the design problem or situation to be solved using most client requirements, considerations and constraints, design fundamentals and performance criteria.	4
Describes the design problem or situation to be solved using some client requirements, considerations and constraints, design fundamentals and performance criteria.	3
Identifies the design problem or situation to be solved using a list of general requirements.	2
States the design problem or situation.	1
Subtotal	5
Criterion 2: Evidence of research	
Provides a comprehensive summary analysis of all research relevant to the client's needs undertaken to develop a solution to the problem or situation.	5
Provides a detailed summary analysis of research relevant to the client's needs undertaken to develop a solution to the problem or situation.	4
Provides a summary analysis of research relevant to the client's needs undertaken to develop a solution to the problem or situation.	3
Provides a brief summary of research undertaken to develop a solution to the problem or situation.	2
Provides evidence of limited research undertaken.	1
Subtotal	5
Criterion 3: Development of concepts and ideas	
Criterion 3.1: Rapid concept sketches	
Provides a wide range of annotated ideas, using technical terminology, exploring whole and/or parts of products. Demonstrates clear relationship between research and concept development, through images and annotations using the statement of intent. Shows evidence of ongoing client consultation.	5
Provides a range of annotated ideas, using some technical terminology, exploring whole and/or parts of products using the statement of intent. Shows evidence of ongoing client consultation.	4
Provides annotated ideas, using some technical terminology, exploring whole and/or parts of products. Shows some evidence of client consultation.	3
Provides annotated ideas, exploring whole and/or parts of products.	2
Provides limited ideas, exploring whole and/or parts of products.	1

Description	Marks
Criterion 3.2: Design development	
Generates four detailed design ideas that build upon the rapid concept sketches showing a progression towards a solution. Shows evidence of ongoing client consultation with justification of ideas using the statement of intent.	6
Generates three detailed design ideas that build upon the rapid concept sketches showing a progression towards a solution. Shows evidence of ongoing client consultation with justification of ideas using the statement of intent.	5
Generates three to four design ideas that build upon the rapid concept sketches showing a progression towards a solution. Shows evidence of ongoing client consultation with some justification of ideas using the statement of intent.	4
Generates design ideas that build upon the rapid concept sketches. Explanation of ideas using the statement of intent or client feedback.	3
Generates and describes design ideas.	2
Generates design ideas.	1
Criterion 3.3: Justification of final design	
Provides a comprehensive justification of the final design concept using the statement of intent and client consultation.	3
Provides a justification of the final design concept using the statement of intent and some client consultation.	2
Identifies and explains the final design concept using the statement of intent or client consultation.	1
Subtotal	14
Criterion 4: Production documents	
Criterion 4.1: Drawings	
Provides detailed, accurate context appropriate rendered 3D presentation and 2D working drawings with relevant annotation, technical information and dimensions/measurements to produce the final product.	5
Provides context appropriate 3D and 2D drawings with some relevant annotation, technical information or dimensions to produce the final product.	4
Provides context appropriate 3D or 2D drawings with some annotation, some technical information or dimensions to produce the final product.	3
Provides context appropriate drawings with few annotations, some technical information or dimensions to produce the final product.	2
Provides drawings with limited information to produce the final product.	1
Criterion 4.2: Materials	
Provides a detailed and accurate materials list for the product, including all components and consumables of the designed product with cost calculations.	4
Provides a detailed materials list for the product, including most components and consumables with cost calculations.	3
Provides a materials list for the product, including some components and consumables with some cost calculations.	2
Provides a materials list.	1

Criterion 4.3: Planning	
Provides a detailed sequential, logical and appropriate production plan.	4
Provides a sequential, logical and appropriate production plan.	3
Provides a sequential production plan.	2
Provides steps for the production.	1
Subtotal	13
Criterion 5: Visual evidence of production	
Provides annotated photographic evidence showing all views of the final product and clear annotated photographic evidence showing all features of the final product.	3
Provides some annotated photographic evidence showing views and some features of the final product.	2
Provides limited photographic evidence of the product.	1
Subtotal	3
Criterion 6: Evaluation	
Provides a comprehensive and critical evaluation report of the design and production processes, an explanation of the problems identified and the solutions proposed or applied, and an evaluation of the product against the statement of intent and performance criteria.	5
Provides a detailed evaluation report of the design and production processes, an explanation of the problems identified and the solutions proposed or applied, and an evaluation of the product against the statement of intent and performance criteria.	4
Provides an evaluation report of the design and production processes, an explanation of the problems identified and the solutions proposed or applied, and an evaluation of the product against the statement of intent.	3
Provides an evaluation of the design and production processes, and the product, with limited connection to the statement of intent.	2
Provides a limited evaluation of the product and/or the design and production processes.	1
Subtotal	5
Total	45

Note: zero (0) will be used for each criterion when there is no evidence demonstrated relating to that criterion.