

Cambridge National in Engineering

OCR Engineering Design Unit R108
Unit Recording Sheet

Please read the instructions printed at the end of this form. One of these sheets, suitably completed, should be attached to the assessed work of each candidate.

Unit Title	3D design realisation		Unit Code	R108	Series		Year	
Centre Name					Centre Number			
Candidate Name					Candi	date Number	•	

Marking Criteria – Total Marks for this unit is 60							
Mark Band 1	Mark Band 2	Mark Band 3	Teacher Comment	Page			
LO1							
Produces a limited interpretation of product specification.	Produces an appropriate interpretation of product specification.	Produces a detailed and appropriate interpretation of product specification.	Mark				
1 – 2 marks	3 – 4 marks	5 – 6 marks					
Basically describes some planning	Adequately describes most planning	Comprehensively describes each					
stages to be used in the making of a prototype, demonstrating limited knowledge of key considerations.	stages to be used in the making of a prototype, demonstrating some knowledge of key considerations.	planning stage to be used in the making of a prototype, demonstrating thorough knowledge of key considerations.	Mark				
1 – 3 marks	4 – 6 marks	7 – 9 marks.					

LO2: Understar	Teacher Comment	Page		
Shows limited understanding of safety considerations and requires regular assistance to produce and use a suitable risk assessment in relation to their production plan.	Shows some understanding of safety considerations and requires occasional assistance to produce and use a suitable risk assessment in relation to their production plan.	Shows thorough understanding of safety considerations and independently produces and uses a suitable risk assessment in relation to their production plan.	Mark	
Requires regular assistance to use a range of hand tools and machines safely and to apply their risk assessment to assess potential hazards and take appropriate precautions.	Requires occasional assistance to use a range of hand tools and machines safely and to apply their risk assessment to assess potential hazards and take appropriate precautions.	Independently uses a range of hand tools and machines safely, applying their risk assessment to assess potential hazards and take appropriate precautions.		
Requires regular prompting to use PPE appropriately when working with tools, machines, material, chemicals, finishes and solvents.	Requires occasional prompting to use PPE appropriately when working with tools, machines, material, chemicals, finishes and solvents.	Independently uses appropriate PPE when working with tools, machines, material, chemicals, finishes and solvents.		
Draws upon limited skills/knowledge/ understanding from other units in the specification.	Draws upon some relevant skills/knowledge/ understanding from other units in the specification.	Clearly draws upon relevant skills/knowledge/ understanding from other units in the specification.		
1 – 5 marks	6 – 9 marks	10 –15 marks		
	LO3: Produce a prototype			
Requires regular assistance to produce a prototype from a production plan.	Requires occasional assistance to produce a prototype from a production plan.	Independently produces a prototype from a production plan.	Mark	
Selects few appropriate materials to produce the prototype.	Selects some appropriate materials to produce the prototype.	Selects the most appropriate materials to produce the prototype.		
Uses tools and processes with limited effectiveness to produce and assemble an outcome that partly meets the production plan.	Uses tools and processes with some effectiveness to produce and assemble an outcome that mostly meets the production plan.	Uses tools and processes effectively to produce and assemble an outcome that fully meets the production plan. Uses appropriate methods to record in		
Produces a limited record of the key stages of making the prototype.	Uses appropriate methods to adequately record most of the key stages of making the prototype.	detail all of the key stages of making the prototype.		
	stages of making the prototype.			

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LO4: Be able to evaluate the success of a prototype					Teacher Commo	ent	Page
Produces a limited evaluation of the production plan and prototype which compares the outcome against the product specification. Produces a detailed evaluation of production plan and prototype which compares the outcome against the product specification.		hich	Produces a detailed and comprehensive evaluation of the production plan and prototype which compares the outcome against the product specification.			Mark	
Makes limited suggestions for potential improvements. Shows a limited understanding of strengths and weaknesses in their own performance.	Considers some relevant potent improvements. Assesses own performance in rethe design, demonstrating some understanding of their own strendand weaknesses.	ealising •	Fully considers p justifying any sug Comprehensive performance in redemonstrating a demonstrating and suggestions.	ootential improvements, gestions made. Iy assesses own ealising the design, clear understanding of			
1 – 4 marks	5 –	8 marks	their own strength	ns and weaknesses. 9 – 12 marks	Total/60		
If this work is a re-sit, please tick Sess	sion and Year of previous submission			Please tick to indicate this wo	ork has been standardised intern	ally	

Guidance on Completion of this Form

Please note: This form may be updated on an annual basis. The current version of this form will be available on the OCR website (www.ocr.org.uk).

Guidance on Completion of this Form

- One sheet should be used for each candidate.
- 2 Please ensure that the appropriate boxes at the top of the form are completed.
- Please enter specific page numbers where evidence can be found in the portfolio, and where possible, indicate to which part of the text in the mark band the evidence relates.
- 4 Circle the mark awarded for each strand of the marking criteria in the appropriate box and enter the circled mark in the final column.
- Add the marks for the strands together to give a total out of 60 Enter this total in the relevant box.