

## **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					Candid	date Numbe	r	

Marking Criteria – Total Marks for this unit is 60						
Mark Band 1	Mark Band 2	Mark Band 3	Teacher Comment	Page		
LO1						
Produces a <b>limited</b> interpretation of product specification.	Produces an <b>appropriate</b> interpretation of product specification.	Produces a <b>detailed</b> and <b>appropriate</b> interpretation of product specification.	Mark			
1 – 2 marks	3 – 4 marks	5 – 6 marks				
Basically describes some planning stages to be used in the making of a prototype, demonstrating limited knowledge of key considerations.	Adequately describes most planning stages to be used in the making of a prototype, demonstrating some knowledge of key considerations.	Comprehensively describes each 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 <b>limited understanding</b> of safety considerations and requires <b>regular</b> assistance to produce and use a suitable risk assessment in relation to their production plan.	Shows <b>some understanding</b> of safety considerations and requires <b>occasional</b> 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 <b>regular</b> 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 <b>occasional</b> 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 <b>regular</b> prompting to use PPE appropriately when working with tools, machines, material, chemicals, finishes and solvents.	Requires <b>occasional</b> 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 <b>limited</b> skills/knowledge/ understanding from other units in the specification.	Draws upon <b>some</b> 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 <b>regular assistance</b> to produce a prototype from a production plan.	Requires <b>occasional assistance</b> to produce a prototype from a production plan.	Independently produces a prototype from a production plan.	Mark	
Selects <b>few</b> appropriate materials to produce the prototype.	Selects <b>some</b> appropriate materials to produce the prototype.	Selects <b>the most appropriate</b> 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 <b>some effectiveness</b> to produce and assemble an outcome that <b>mostly</b> meets the production plan.	Uses tools and processes <b>effectively</b> to produce and assemble an outcome that <b>fully</b> meets the production plan.  Uses <b>appropriate</b> methods to record <b>in</b>		
Produces a <b>limited</b> 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.		
1 – 6 marks	7 – 12 marks	13 – 18 marks		

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LO4: Be able to evaluate the success of a prototype					Teacher Comment		Page
Produces a <b>limited</b> evaluation of the production plan and prototype which compares the outcome against the product specification.  Makes <b>limited</b> suggestions for potential improvements.  Shows a <b>limited</b> understanding of strengths and weaknesses in their	Produces a <b>detailed</b> evaluation of the production plan and prototype which compares the outcome against the product specification.  Considers <b>some</b> relevant potential improvements.  Assesses own performance in realising the design, demonstrating <b>some</b>		Produces a detailed and comprehensive evaluation of the production plan and prototype which compares the outcome against the product specification.  Fully considers potential improvements, justifying any suggestions made.  Comprehensively assesses own performance in realising the design,			Mark	Ü
own performance.  1 – 4 marks	understanding of their own stren and weaknesses.  5 -	8 marks	demonstrating a	clear understanding of hs and weaknesses.  9 – 12 marks	Total/60		
Total/60						_	
If this work is a re-sit, please tick Session and Year of previous submission Please tick to indicate this work has been standardised internally							

## **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 (<a href="www.ocr.org.uk">www.ocr.org.uk</a>).

## **Guidance on Completion of this Form**

- 1 **One** sheet should be used for each candidate.
- 2 Please ensure that the appropriate boxes at the top of the form are completed.
- 3 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.