



Unit Assessment Record (UAR)

Applied Heat

(D3PJ 04)

Credit Value: 1

NB: After entering your personal details please pass this document to your tutor for completion and eventual return to COLU. You may wish to retain a copy for your own use.

TITLE:	SURNAME:	UNIT TUTOR:
FORENAME(s):	CENTRE:	
HOME ADDRESS:	ADDRESS:	
.....	
.....	
POST CODE:	POST CODE:	
HOME TEL:	TEL NO:	
WORK TEL:	FAX NO:	
FAX NO:	E-MAIL:	
E-MAIL:	CENTRE CONTACT:	

SQA REG. NO:	UNIT START DATE:
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AUTHENTICATION OF EVIDENCE – INTERVIEW	DATE:
PORTFOLIO OF EVIDENCE AVAILABLE	<input type="checkbox"/>
EVIDENCE AUTHENTICATED	<input type="checkbox"/>
ALL OUTCOMES SATISFIED	<input type="checkbox"/>
Please initial as appropriate	
NOTES:	
.....	
.....	
.....	
.....	

GRADE	REFER	PASS	MERIT	
FINAL GRADE:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Please initial as appropriate
ASSESSOR:				DATE:



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VERIFIER:..... DATE:

Evidence Log – For each of the performance criteria please clearly identify the evidence within the portfolio that satisfies the criterion.

1) Solve problems involving gas processes and vapour processes

TMA Evidence

Supplementary Evidence & Location

- | |
|---|
| (a) Descriptions of gas and vapour processes are clear and correct. |
| (b) Representation of processes on property diagrams is correct. |
| (c) Evaluation of properties is correct according to property tables. |
| (d) Solutions to problems relating to gas and vapour processes are correct. |

_____	_____
_____	_____
_____	_____
_____	_____

2) Solve problems relating to the combustion of fuels

- | |
|---|
| (a) Identification of products of combustion is correct according to the type of fuel burned. |
| (b) Application of gravimetric and volumetric analysis is appropriate to fuel type. |
| (c) Solutions to fuel combustion problems follow a logical development. |

_____	_____
_____	_____
_____	_____

3) Solve problems involving thermodynamic cycles

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|--|
| (a) Statements of ideal thermodynamic cycle performance criteria are precise. |
| (b) Calculations relating to performance criteria of ideal thermodynamic cycles are correct. |

_____	_____
_____	_____

4) Solve problems relating to steady state heat transfer

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| (a) Descriptions of different heat transfer processes are clear. |
| (b) Solutions to heat transfer problems are correct. |

_____	_____
_____	_____

Assessment Matrix – The matrix indicates which instruments of assessment, within the primary assessment package, are required to satisfy individual performance criteria.

The column titled **Merit** identifies where particular opportunities exist for candidates to develop their work with a view to satisfying the requirements for the award of merit.

The row titled **Minimum Evidence Requirement** indicates the minimum number of examples required (or times a task must be performed) to satisfy a particular performance criterion.

Applied Heat

OUTCOMES/PERFORMANCE CRITERIA		Qu	1a	1b	1c	1d	2a	2b	2c	3a	3b	4a	4b	Merit
EVIDENCE	TMA - 0 - (1, 2) (v2)	1	F	O	R	M	A	T	I	V	E			
		2	F	O	R	M	A	T	I	V	E			
		3	F	O	R	M	A	T	I	V	E			
		4	X											
		5	X											
		6	F	O	R	M	A	T	I	V	E			
		7				X								
		8				X								
		9				X								
		10				X								
		11				X								
		12	X											
	TMA - 0 - (3, 4, 5) (v2)	1	X											
		2				X								
		3			X									
		4		X										
		5	X											
		6		X	X	X								
		7	X			X								
		8		X		X								
		9		X	X	X								
	TMA - 1 - (1, 2) (v2)	1					X	X	X					
		2					X	X	X				X	
		3					X	X	X				X	
	TMA - 2 (v2)	1								X				
		2								X	X		X	
		3								X				
		4								X	X			
		5								X				
		6									X			
		7									X			
	TMA - 3 (v2)	1										X		
		2											X	
		3											X	
		4											X	
		5											X	
MINIMUM EVIDENCE REQUIREMENT			6	4	3	10	3	3	3	5	4	1	4	5

Merit Statement

To gain a pass in this unit, a candidate must meet the standards set out in the outcomes, performance criteria, range statements and evidence requirements.

To achieve a merit in this unit, a candidate must demonstrate a superior or more sophisticated level of performance. In this unit this might be shown in the following way:

- Demonstrating an ability to relate theoretical principles to practical combustion, heat transfer and engine cycle problems.