



Unit Assessment Record (UAR) Mathematics for Engineering (D4JH 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:



FOR COLU USE ONLY

VERIFIER:..... DATE:

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

1) Carry out operations involving complex numbers

TMA Evidence

Supplementary Evidence & Location

- | |
|---|
| (a) The performance of arithmetic operations on complex expressions is correct. |
| (b) The conversion of complex numbers from cartesian to polar form and vice versa is correct. |
| (c) The representation of complex numbers on an Argand diagram is correct. |

_____	_____
_____	_____
_____	_____

2) Apply algebraic methods in problem solving

- | |
|--|
| (a) The solution of equations is correct. |
| (b) Changing the subject of formulae is correct. |

_____	_____
_____	_____

3) Apply trigonometric methods in problem solving

- | |
|--|
| (a) The solution of problems using compound angle formulae is correct. |
| (b) The solution of problems using products-to-sums formulae is correct. |

_____	_____
_____	_____

4) Differentiate and integrate functions

- | |
|--|
| (a) The differentiation of standard functions is correct. |
| (b) The definite integration of standard functions is 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.

Mathematics for Engineering

OUTCOMES/PERFORMANCE CRITERIA		Qu	1a	1b	1c	2a	2b	3a	3b	4a	4b								Merit
EVIDENCE	TMA - 1	1						X											
		2							X										
		3							X										
		4								X									
		5							X										X
	TMA - 2	1				X													
		2				X													
		3				X													
		4				X													
		5				X													
		6				X													X
		7						X											
		8						X											
		9						X											
		10						X											X
		11	X																
	12	X																	
	13		X																
	14		X																
	15			X															
	16	X																X	
TMA - 3	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									X									
	7									X									
	8									X									
	9									X								X	
	10									X								X	
TMA - 4	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									X									
	7									X									
	8									X								X	
	9									X								X	
MINIMUM EVIDENCE REQUIREMENT			*	*	*	2*	2*	1	1	3*	3*							8	

*See page 1 of relevant TMA for minimum evidence requirements including specific range requirements

Merit Statement – The award of merit will be made to candidates who satisfactorily meet all of the performance criteria for the unit, and in addition demonstrate superior performance in each of the following aspects:

- (a) consistently high level of accuracy
- (b) outstanding skills of analysis
- (c) consistently logical presentation of work.