



Unit Assessment Record (UAR) Industrial Control Systems (D3PY 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:	
.....	
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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 fully with respect to the range and evidence requirements as stated in the unit specification.

1) Analyse the composition of feedback control systems

TMA Evidence

Supplementary Evidence & Location

- (a) Block diagrams are correctly produced for simple feedback control systems.
- (b) Closed loop transfer functions are derived correctly from data presented in block diagram form.

2) Appraise the stability of control systems

- (a) The effects of positive and negative feedback on the performance of control systems are correctly explained.
- (b) Calculations relating to the response of systems to common disturbance patterns are correct for given conditions.

3) Appraise the response of control systems

- (a) Selection of a control action is appropriate to a given set of conditions.
- (b) Calculations relating to common control actions are correct for given data.
- (c) Descriptions of controllers are sufficient to explain their operations.

4) Analyse the operational characteristics of control valves

- (a) Identification of valve flow/lift characteristics is correct in terms of the respective function.
- (b) The sizing of a control valve is correct in terms of given data.
- (c) Descriptions of undesirable operational effects are correct in terms of flow conditions.

5) Analyse the operation of control systems

- (a) Description of the response of a control system to the physical disturbance of a process variable is correct in terms of given conditions.

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..

Industrial Control Systems

OUTCOMES/PERFORMANCE CRITERIA		Qu	1a	1b	2a	2b	3a	3b	3c	4a	4b	4c	5a	Merit
EVIDENCE	TMA - 1 (v2)	1	X											
		2	X	X										
		3		X										
		4		X										
		5		X										
	TMA - 2 (v2)	1				X								
		2				X								
		3				X								
		4				X	X							
		5				X	X							
	TMA - 3 - (v2)	1						X						
		2						X						
		3						X	X					
		4						X	X					
		5						X	X	X				
		6						X						
		7						X						
		8												X
	TMA - 4 (v2)	1									X			
		2									X			
	3										X			
	4											X		
	5											X		
	6											X		
	7											X		
MERIT ASSIGNMENT (v2)	1													X
	2													X
MINIMUM EVIDENCE REQUIREMENT			2	4	3	4	1	5	3	1	1	1	5	1

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 use a number of different performance criteria in an integrative way.