



Australian Government

Department of Education, Employment and Workplace Relations

UEE42211 Certificate IV in Instrumentation and Control

Release: 1

UEE42211 Certificate IV in Instrumentation and Control

Modification History

Not applicable.

Description

Scope

This qualification provides competencies to select, install, set up, test, fault find, repair, maintain and commission systems and devices for measurement and recording of physical/chemical phenomenon and related process control systems.

Pathways Information

Not applicable.

Licensing/Regulatory Information

Not applicable.

Entry Requirements

Not applicable.

Employability Skills Summary

Not applicable.

Packaging Rules

Completion requirements

The requirements for granting this qualification will be met when competency is demonstrated and achieved for:

- All the Core competency standard units, defined in the Core Competency Standard Units table below and
- A combination of Elective competency standard units to achieve a total weighting of 200 points in accordance with the Elective Competency Standard Units table below.

Note: UEENEEI112A - Those holding an 'Certificate III in Instrumentation and Control trade qualification or equivalent' meet the requirements of this unit and its pre-requisite requirements.

Core Competency Standard Units		Weighting Points
All Core competency standard units to be achieved		
UEENEEE038B	Participate in development and follow a personal competency development plan	20
UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, dismantle, assemble of utilities industry components	40
UEENEEE104A	Solve problems in d.c. circuits	80
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE119A	Solve problems in multiple path a.c. circuits	40
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEI101A	Use instrumentation drawings, specifications, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement circuits	40

	and systems	
UEENEEI103A	Solve problems in density/level measurement circuits and systems	40
UEENEEI104A	Solve problems in flow measurement circuits and systems	40
UEENEEI105A	Solve problems in temperature measurement circuits and systems	40
UEENEEI106A	Set up and adjust PID process control loops	40
UEENEEI107A	Install process instrumentation and tubing and control cabling	20
UEENEEI108A	Install process control apparatus and associated equipment	20
UEENEEI110A	Set up and adjust advanced process control loops	40
UEENEEI111A	Find and rectify faults in process final control elements	40
UEENEEI112A	Verify compliance and functionality of instrumentation and control installations	40
UEENEEI113A	Setup and configure human-machine interface (HMI) and industrial networks	60
UEENEEI124A	Diagnose and rectify faults in electronic control systems	60
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
UEENEEK145A	Implement and monitor energy sector policies and procedures for environmental and sustainable work practices	20
UEENEEP013A	Disconnect /reconnect control devices connected to low voltage installation wiring	60
Total points in core		1080

Elective Competency Standard Units		
Complete Elective units to achieve a total of weighting of 200 points from the following groups:		
Group	Minimum points	Maximum points
A	Imported and Common Elective Units Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 4. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0
B	Qualification Elective Units	0
C	Qualification Elective Units You may select all your elective units from this Group	100

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 60		
UEENEEC001B	Maintain documentation	20
UEENEEC002B	Source and purchase material/parts for installation or service jobs	20
UEENEEC003B	Provide quotations for installation or service jobs	20
UEENEEC010B	Deliver a service to customers	20
UEENEED101A	Use basic computer applications relevant to a energy sector workplace	20
UEENEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTCPR201B	Perform CPR	10

	<p>Imported units from other training packages and/or state accredited courses can be added to this group, but they must be selected from qualifications where the unit is first packaged at AQF level 4. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.</p> <p>Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework</p>	<p>Up to 60 points</p>
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Group B – Qualification Elective Units		Weighting Points
You may complete units to a maximum weighting of 100		
UEENEED104A	Use software for engineering applications	40
UEENEEH102A	Repair basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH112A	Troubleshoot digital sub-systems	80
UEENEEI114A	Find and rectify faults in process control systems	60
UEENEEI117A	Calibrate and test measuring instrumentation equipment	40
UEENEEI118A	Set up weighting measuring and control instruments	20
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining	20
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres	20
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres	20
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation	20
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60

UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM076A	Use and maintain the integrity of a portable gas detection device	20
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment	20
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area	20

Group C – Qualification Elective Units		Weighting Points
You must complete units to a minimum weighting of 100 You may select all your elective units from this Group		
UEENEEC005B	Estimate electrotechnology projects	40
UEENE EI121A	Find and repair faults in measuring and analysis systems	40
UEENE EI122A	Assist in commissioning of process control systems	40
UEENE EI125A	Provide solutions to fluid circuit operations	60
UEENE EI126A	Provide solutions to pneumatic/hydraulic system operations	80
UEENE EI148A	Provide solutions to single phase electronic power control problems	60
UEENE EI151A	Develop, enter and verify programs for industrial control systems using high level instructions	60
UEENE EI152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENE EI155A	Develop structured programs to control external devices	40

UEENEEM078A	Manage compliance of hazardous areas	20
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
UEENEEM043A	Conduct detailed inspection of hazardous areas installations — coal mining	40
UEENEEM044A	Conduct detailed inspection of hazardous areas installations — gas atmospheres	40
UEENEEM045A	Conduct detailed inspection of hazardous areas installations — dust atmospheres	40
UEENEEM046A	Conduct detailed inspection of hazardous areas installations — pressurisation	40

Note:

1. Prerequisite pathways shall be identified and met for all elective units selected.
2. In selecting elective units considerations to career planning advice should be given to units that form part of a prerequisite pathway for the progression to achieve particular competencies or qualification at a higher level.

END OF QUALIFICATION**Custom Content Section**

Not applicable.