



Australian Government

UEE40911 Certificate IV in Industrial Electronics and Control

Release: 4

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Modification History

Release	Action	Core/Elective	Details	Points
2	Add	Group B	UEENEEH150A Assemble and set up basic security systems	80
2	Edit		Edit Name to reflect correct Unit title UEENEEH104A Use engineering applications software on personal computers	40
2	Edit		Edit Name to Reflect correct Unit Title UEENEEI124A Fault find and repair analogue circuits and components in electronic control systems	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI102A Solve problems in pressure measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI103A Solve problems in density_level measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI104A Solve problems in flow measurement components and systems	40
3	Edit	Group B	Edit Name to reflect correct Unit title UEENEEI105A Solve problems in temperature measurement components and systems	40
3	Edit	Group C	Edit Name to reflect correct Unit title UEENEEI151A Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
3	Edit	Core	Edit Name to reflect correct Unit title	20

			UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	
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4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEEG110A - Find and repair faults in LV d.c. electrical apparatus and circuits	60
4	Edit	Elective	Correct title of UEENEEEG119A - Maintain operation of electrical marine equipment and systems	60
4	Edit	Elective	Correct title of UEENEEEG132A - Carry out low voltage electrical field testing and report findings	60
4	Edit	Elective	Correct title of UEENEEEH102A - Repairs basic electronic apparatus faults by replacement of components	40
4	Edit	Elective	Correct title of UEENEEEI101A - Use instrumentation drawings, specification, standards and equipment manuals	40
4	Edit	Elective	Correct title of UEENEEEI103A - Solve problems in density/level measurement components and systems	40
4	Edit	Elective	Correct title of UEENEEEI116A - Assemble, enter and verify operating instructions in microprocessor equipped devices	20
4	Edit	Elective	Correct title of UEENEEEI119A - Set up industrial field control devices	60
4	Edit	Elective	Correct title of UEENEEEI126A - Provide solutions to pneumatic-hydraulic system operations	80

4	Edit	Elective	Correct title of UEENEEI148A - Solve problems in single phase electronic power control circuits	60
4	Edit	Elective	Correct title of UEENEEI149A - Solve problems in polyphase electronic power control circuits	60

Description

Scope

This qualification provides competencies to select, install, commission, fault find and maintain equipment and systems for the control of plant, machines and processes. It includes ERAC requirements for an 'Electrician's licence'.

^ From 1 July 2022 the elective unit HLTAID001 must no longer be delivered and will be replaced in the Packaging Rules by the unit HLTAID009 - for more information see: <https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units>

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: UEENEEG105A - Those holding an 'Unrestricted Electricians Licence or equivalent issued in an Australian State or Territory meets 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 and Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, assemble and dismantle 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
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	20
UEENEEG006A	Solve problems in single and three phase low voltage machines	80
UEENEEG033A	Solve problems in single and three phase low voltage electrical apparatus and circuits	60
UEENEEG063A	Arrange circuits, control and protection for general electrical installations	40
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	60
UEENEEG102A	Solve problems in low voltage a.c. circuits	80
UEENEEG103A	Install low voltage wiring and accessories	20
UEENEEG104A	Install appliances, switchgear and associated	20

	accessories for low voltage electrical installations	
UEENEEG105A	Verify compliance and functionality of low voltage general electrical installations	40
UEENEEG106A	Terminate cables, cords and accessories for low voltage circuits	40
UEENEEG107A	Select wiring systems and cables for low voltage general electrical installations	60
UEENEEG108A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits	40
UEENEEG109A	Develop and connect electrical control circuits	80
UEENEEI124A	Fault find and repair analogue circuits and components in electronic control systems	60
UEENEEI139A	Diagnose and rectify faults in digital controls systems	60
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
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	100
B	Qualification Elective Units	0	100

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	100
C	Qualification Elective Units You may select all your elective units from this Group	100	200

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 100		
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
UEENEEED101A	Use computer applications relevant to a workplace	20
UEENEEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001 ^ HLTAID009	Provide cardiopulmonary resuscitation Provide cardiopulmonary resuscitation (must be	10

	delivered from 1 July 2022)	
	<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>	Up to 100 points

Group B – Qualification Elective Units You may complete units to a maximum weighting of 100		Weighting Points
UEENEEED104A	Use engineering applications software on personal computers	40
UEENEEEE190A	Prepare engineering drawings using manual drafting and CAD for electrotechnology/utilities applications	60
UEENEEEE191A	Prepare electrotechnology/utilities drawings using manual drafting and CAD equipment and software	60
UEENEEEE192A	Produce detailed electrotechnology /utilities drawings using computer aided design equipment and software	60
UEENEEEF102A	Install and maintain cabling for multiple access to telecommunication services	120
UEENEEEF104A	Install and modify performance data communication copper cabling	40
UEENEEEG110A	Find and repair faults in LV d.c. electrical apparatus and circuits	60
UEENEEEG118A	Maintain operation of electrical mining equipment and systems	60
UEENEEEG119A	Maintain operation of electrical marine equipment	60

	and systems	
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies	40
UEENEEH150A	Assemble and set up basic security systems	80
UEENEEI101A	Use instrumentation drawings, specification, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement components and systems	40
UEENEEI103A	Solve problems in density/level measurement components and systems	40
UEENEEI104A	Solve problems in flow measurement components and systems	40
UEENEEI105A	Solve problems in temperature measurement components and systems	40
UEENEEI116A	Assemble, enter and verify operating instructions in microprocessor equipped devices	20
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers	60
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
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
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Group C – Qualification Elective Units You must complete units to a minimum weighting of 100 You may select all your elective units from this Group		Weighting Points
UEENEEC005B	Estimate electrotechnology projects	40
UEENEEL132A	Carry out low voltage electrical field testing and report findings	60
UEENEEL179A	Develop detailed electrical drawings	60
UEENEEL119A	Set up industrial field control devices	60
UEENEEL120A	Provide solutions to problems in industrial control systems	60
UEENEEL125A	Provide solutions to fluid circuit operations	60
UEENEEL126A	Provide solutions to pneumatic-hydraulic system operations	80
UEENEEL148A	Solve problems in single phase electronic power control circuits	60
UEENEEL149A	Solve problems in polyphase electronic power control circuits	60
UEENEEL151A	Develop, enter and verify word and analogue control programs for programmable logic controllers.	60
UEENEEL152A	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems	60
UEENEEL155A	Develop structured programs to control external devices	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.