



**Australian Government**

# **UEE41211 Certificate IV in Electrical - Rail Signalling**

**Release: 4**

## UEE41211 Certificate IV in Electrical - Rail Signalling

### Modification History

Release	Action	Core/Elective	Details	Points
2	Edit		Edit Name to reflect correct Unit title UEENEED104A Use engineering applications software on personal computers	40
2	Edit		Added Heading for Performance Criteria Element 2 and 3	
2	Update	Group A	HLTCPR211A Perform CPR	10

3	Edit	Core	Edit Name to reflect correct Unit title UEENEEK145A Implement and monitor energy sector environmental and sustainable policies and procedures	20
---	------	------	--	----

4	Update	Elective	HLTAID001 - Provide cardiopulmonary resuscitation	10
4	Edit	Core	Correct title of UEENEEEE101A - Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
4	Edit	Core	Correct title of UEENEEEE102A - Fabricate, assemble and dismantle utilities industry components	40
4	Edit	Elective	Correct title of UEENEED101A - Use computer applications relevant to a workplace	20
4	Edit	Elective	Correct title of UEENEEN106A - Install and maintain non-vital screen based control systems	20

## Description

### Scope

This qualification provides competencies to install, certify, fault find and maintain rail signalling equipment and systems. This includes ERAC requirements for an 'Electrician's licence', performing like for like replacement, performing authorised installations and alterations, and applying emergency operational restriction. It excludes changing circuit principles, changing the design function and commissioning.

### Note:

Commissioning is defined as the process to certify the signalling system to the enterprise standard. Certification is defined as the signing of certification documents by qualified, competent persons attesting to the design, product, or installation is in accordance with the specification requirements as verified by appropriate inspections and/or tests at equipment level.

**^ 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https://asqa.gov.au/news-events/news/reminder-about-superseded-hlt-first-aid-units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 70 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.

<b>Core Competency Standard Units</b>		<b>Weighting Points</b>
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
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 accessories for low voltage electrical installations	20
UEENEEG105A	Verify compliance and functionality of low voltage	40

	general electrical installations	
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
UEENEEK145A	Implement and monitor energy sector environmental and sustainable policies and procedures	20
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UEENEEN103A	Install and maintain rail track circuit leads and bonds	30
UEENEEN104A	Test copper rail signalling cables	20
UEENEEN105A	Install and maintain rail signalling power supplies	40
UEENEEN107A	Install and maintain active level crossing equipment	40
UEENEEN108A	Install and maintain power operated point actuating devices	40
UEENEEN109A	Install and maintain train detection equipment	40
UEENEEN111A	Install and maintain trackside signal and train protection equipment	40
UEENEEN112A	Install and maintain vital relay interlocking systems	40
UEENEEN118A	Find and repair rail signalling system faults	20
UEENEEN121A	Repair rail signalling power and control cables	40
<b>Total points in core</b>		<b>1280</b>

### Elective Competency Standard Units

Complete Elective units to achieve a total of weighting of 70 points from the following groups:

Group		Minimum points	Maximum points
<b>A</b>	<b>Imported and Common Elective Units</b> 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	30
<b>B</b>	<b>Qualification Elective Units</b>	0	40
<b>C</b>	<b>Qualification Elective Units</b> You may select all your elective units from this Group	30	70

Group A – Imported and Common Elective Units		Weighting Points
You may complete units to a maximum weighting of 30		
CPCCOHS1001A	Work safely in the construction industry	10
HLTAID001 ^ HLTAID009	Provide cardiopulmonary resuscitation <b>Provide cardiopulmonary resuscitation (must be delivered from 1 July 2022)</b>	10
TLIS2004A	Install and maintain rail bonding systems	40
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

	<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 30 points
--	---	-----------------

<b>Group B – Qualification Elective Units</b> You may complete units to a maximum weighting of 40		<b>Weighting Points</b>
UEENEED104A	Use engineering applications software on personal computers	40
UEENEED146A	Set up and configure basic local area network (LAN)	80

<b>Group C – Qualification Elective Units</b> You must complete units to a minimum weighting of 30 You may select all your elective units from this Group		<b>Weighting Points</b>
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE152A	Observe safety practices are followed in the vicinity of isolated electrical cables	20
UEENEEN101A	Maintain mechanical rail signalling equipment and infrastructure	20
UEENEEN106A	Install and maintain non-vital screen based control systems	20
UEENEEN110A	Install and maintain non-vital telemetry systems	40
UEENEEN114A	Install and maintain computer based interlocking rail systems	30

UEENEEN116A	Maintain electronic and microprocessor-based remote control systems	20
UEENEEN126A	Develop rail signalling system maintenance programs	20
UEENEEN127A	Decommission electrical and electro-mechanical rail signalling from service	20
UEENEEN128A	Test and commission rail power equipment	20

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.