Australian Government

Department of Education, Employment and Workplace Relations

# UEE50210 Diploma of Electrical and Instrumentation

Release: 1

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

## UEE50210 Diploma of Electrical and Instrumentation

# Modification History

Not Applicable

# Description

**Scope**
This qualification provides competencies to develop, select, install, commission, maintain and diagnose faults/malfunctions on electrical, instrumentation and control equipment and systems. It includes ERAC requirements for an 'Electrician's licence'.

# 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 awarding this qualification are that the following are successfully achieved:

- All of the Core competency standard units
- The required number of Stream Core competency standard units;
- The required number of Elective competency standard units as prescribed in the respective Schedule; and
- All the required pre-requisite competency standard units have been met as required.
  - Note: UEENEEG005B - Those holding an 'Unrestricted Electricians Licence or equivalent issued in an Australian State or Territory meet the requirements of this unit and its pre-requisite requirements.
- Note: UEENEEI012B - Those holding a '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

All Core competency standard units to be achieved

**Core Competency Standard Units**

All Core competency standard units to be achieved

| | |
|---|---|
| UEENEED007B | Develop, enter and verify programs for programmable logic controllers using ladder instruction set |
| UEENEEE001B | Apply OHS practices in the workplace |
| UEENEEE002B | Dismantle, assemble and fabricate electrotechnology components |
| UEENEEE003B | Solve problems in extra-low voltage single path circuits |
| UEENEEE004B | Solve problems in multiple path d.c. circuits |
| UEENEEE005B | Fix and secure equipment |
| UEENEEE007B | Use drawings, diagrams, schedules and manuals |
| UEENEEE008B | Lay wiring/cabling and terminate accessories for extra-low voltage circuits |
| UEENEEE017B | Implement and monitor OHS policies and procedures |
| UEENEEE024C | Compile and produce an electrotechnology report |
| UEENEEE033B | Document occupational hazards and risks in electrical work |
| UEENEEE035B | Document occupational hazards and risks in instrumentation |
| UEENEEE038B | Participate in development and follow a personal competency development plan |
| UEENEEE084A | Write specifications for electrotechnology engineering projects |
| UEENEEG001B | Solve problems in electromagnetic circuits |
| UEENEEG002B | Solve problems in single and three phase low voltage circuits |
| UEENEEG003B | Install wiring and accessories for low voltage circuits |
| UEENEEG004B | Install low voltage electrical apparatus and associated equipment |
| UEENEEG005B | Verify compliance and functionality of general electrical installations |
| UEENEEG007B | Select and arrange equipment for general electrical installations |
| UEENEEG008B | Find and repair faults in electrical apparatus and circuits |
| UEENEEG009B | Develop and connect control circuits |

**Core Competency Standard Units**

All Core competency standard units to be achieved

| | |
|---|---|
| UEENEEI001B | Install and set up transducers and sensing devices |
| UEENEEI002B | Solve problems in pressure measurement systems |
| UEENEEI003B | Solve problems in density/level measurement systems |
| UEENEEI004B | Solve problems in flow measurement systems |
| UEENEEI005B | Solve problems in temperature measurement systems |
| UEENEEI006B | Solve problems in process controllers, transmitters and converters |
| UEENEEI007C | Install process instrumentation and control cabling and tubing |
| UEENEEI008C | Install process control apparatus and associated equipment |
| UEENEEI010B | Set up and adjust process control loops |
| UEENEEI012B | Verify compliance and functionality of process control installations |
| UEENEEI013B | Select equipment for process control systems |

**Stream Core Competency Standard Units**

At least 1 of the following competency standard units to be achieved

| | |
|---|---|
| BSBMGT502B | Manage people performance |
| BSBINM501A | Manage an information or knowledge management system |
| BSBMGT516C | Facilitate continuous improvement |
| BSBINN502A | Build and sustain an innovative work environment |
| BSBWOR502B | Ensure team effectiveness |

**OR**

**Stream Core Competency Standard Units**

At least 1 of the following competency standard units to be achieved

At least 4 of the following competency standard units to be achieved

| | |
|---|---|
| UEENEEC001B | Maintain documentation |
| UEENEEC002B | Source and purchase material/parts for installation or service jobs |
| UEENEEC003B | Provide quotations for installation or service jobs |
| UEENEEC010B | Deliver a service to customers |
| UEENEED001B | Use basic computer applications relevant to a workplace |
| UEENEEE009B | Comply with scheduled and preventative maintenance program processes |
| UEENEEE020B | Provide basic instruction in the use of electrotechnology apparatus |
| UEENEEK042A | Participate in environmentally sustainable work practices |
| UEENEEK045A | Implement&monitor, policies&procedures for environmentally sustainable electrotech work practice |

**Elective Competency Standard Units**
In accordance with Schedule 5 which forms an integral part of this qualification, achieve a Unit Strand Total of at least 9

**Note**:  1. Pre-requisite 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 pre-requisite pathway for the progression to achieve particular competencies or qualification at a higher level.
3.      Registered training organisations shall provide competency development advice in relation to any licensing requirements to practice that apply, or can contribute towards the qualification requirement, prior to establishing the competency development plan.

END OF QUALIFICATION
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