



Australian Government

UEE50320 Diploma of Electrical and Refrigeration and Air Conditioning

Release 4

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Modification History

Release 4. Updated superseded elective units.

Release 3. Updated superseded imported unit.

Release 2. Two units added to general electives. Imported elective units updated.

Release 1. This is the first release of this qualification in the UEE Electrotechnology Training Package

Qualification Description

This qualification covers competencies to select, install, set up, test, commission, fault find, repair and maintain refrigeration, air conditioning and electrical systems and equipment in buildings and premises. This qualification contributes to the Refrigeration and Air Conditioning (RAC) Refrigerant Handling Licence.

Refrigerant Handling Licence:

The achievement of the qualification meets the training components for the full national Refrigerant Handling Licence which is required to work on refrigeration and air conditioning equipment that carries the risk of a fluorocarbon refrigerant being emitted while decanting the refrigerant or manufacturing, installing, commissioning, servicing, maintaining or decommissioning RAC equipment.

RAC Occupational Licence:

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to refrigeration/air conditioning work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Electrical Licence:

The achievement of this qualification meets Electrical Regulatory Authority Council (ERAC), or their successor's, Essential Performance Capabilities for an 'Unrestricted Electrician's license'.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

A total of **1830 weighting points** comprising:

1750 core weighting points listed below; **plus**

80 general elective weighting points from the general elective units listed below.

Choose a total of **80 weighting points** elective units from the list below, of which between 0 and 20 **weighting points** can be taken from Group A; between 0 and 20 **weighting points** can be taken from Group B; between 0 and 20 **weighting points** can be taken from Group C; and between 40 and 80 **weighting points** must be taken from Group D (or all electives units of 80 **weighting points** can be taken from Group D).

Up to 20 weighting points of the general elective units Group A, may be selected, with appropriate contextualisation, from any relevant nationally endorsed Training Package or accredited course, provided selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in the UEE Electrotechnology Training Package Companion Volume Implementation Guide (CVIG), if not listed weighting points will be 10 points, unless directed from the Electrotechnology Industry Reference Committee (IRC).

There are units of competency within this qualification that contain pre-requisites. Units of competency that have a pre-requisite requirement are identified by this symbol *. Refer directly to the units of competency to identify pre-requisite requirements to ensure all are complied with. A list of all pre-requisites is also provided in the UEE Pre-requisites Companion Volume.

Where imported units are selected, care must be taken to ensure all pre-requisite units specified are complied with.

Core units	Weighting Points
UEECD0007 Apply work health and safety regulations, codes and practices in the workplace	20
UEECD0010 Compile and produce an energy sector detailed report	60
UEECD0016 Document and apply measures to control WHS risks associated with electrotechnology work*	20
UEECD0019 Fabricate, assemble and dismantle utilities industry components*	40
UEECD0020 Fix and secure electrotechnology equipment*	20
UEECD0024 Implement and monitor energy sector WHS policies and procedures	20
UEECD0027 Participate in development and follow a personal competency development plan	20
UEECD0044 Solve problems in multiple path circuits*	40
UEECD0046 Solve problems in single path circuits*	40
UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications*	40

UEECD0060	Write specifications for electrotechnology engineering projects	40
UEEEL0003	Arrange circuits, control and protection for electrical installations*	40
UEEEL0005	Develop and connect electrical control circuits*	80
UEEEL0008	Evaluate and modify low voltage heating equipment and controls*	20
UEEEL0009	Evaluate and modify low voltage lighting circuits, equipment and controls*	20
UEEEL0010	Evaluate and modify low voltage socket outlets circuits*	20
UEEEL0012	Install low voltage wiring, appliances, switchgear and associated accessories*	40
UEEEL0014	Isolate, test and troubleshoot low voltage electrical circuits*	60
UEEEL0018	Select wiring systems and select cables for low voltage electrical installations*	60
UEEEL0019	Solve problems in direct current (d.c.) machines*	30
UEEEL0020	Solve problems in low voltage a.c. circuits*	80
UEEEL0021	Solve problems in magnetic and electromagnetic devices*	30
UEEEL0023	Terminate cables, cords and accessories for low voltage circuits*	40
UEEEL0024	Test and connect alternating current (a.c.) rotating machines*	50
UEEEL0025	Test and connect transformers*	30
UEEEL0039	Design, install and verify compliance and functionality of general electrical installations*	40
UEEEL0047	Identify, shut down and restart systems with alternate supplies*	20
UEERA0031	Diagnose and rectify faults in air conditioning and refrigeration control systems*	60
UEERA0035	Establish the basic operating conditions of air conditioning systems*	20

UEERA0036	Establish the basic operating conditions of vapour compression systems*	60
UEERA0044	Find and rectify faults in single phase motors and associated controls*	40
UEERA0045	Find and rectify faults in three phase motors and associated controls*	30
UEERA0050	Install refrigerant pipe work, flow controls and accessories*	60
UEERA0051	Install, commission, service and maintain air conditioning systems*	80
UEERA0052	Install, commission, service and maintain low temperature systems*	40
UEERA0053	Install, commission, service and maintain medium temperature systems*	60
UEERA0059	Prepare and connect refrigerant tubing and fittings*	40
UEERA0062	Recover and charge refrigerants*	40
UEERA0079	Safely handle refrigerants and lubricants*	40
UEERA0081	Select refrigerant piping, accessories and associated controls*	40
UEERA0092	Solve problems in low voltage refrigeration and air conditioning circuits*	40
UEERA0094	Verify functionality and compliance of refrigeration and air conditioning installations*	40
UEERE0013	Develop strategies to address environmental and sustainability issues in the energy sector	20
UETDRRF004	Perform rescue from a live LV panel*	20
Group A: Imported and common elective units		Weighting Points
BSBOPS203	Deliver a service to customers	20
ICTICT214	Operate application software packages	20
HLTAID009	Provide cardiopulmonary resuscitation	10
UEECD0011	Comply with scheduled and preventative maintenance	20

	program processes	
UEECD0035	Provide basic instruction in the use of electrotechnology apparatus	20
UEECO0002	Maintain documentation	20
UEECO0015	Provide quotations for installation or service jobs	20
UEECO0017	Source and purchase material/parts for installation or service jobs	20
Group B: Qualification elective units		Weighting Points
UEEEL0078	Install and commission whole current electricity meters*	20
UEEIC0002	Assemble, enter and verify operating instructions in microprocessor equipped devices*	20
UEEIC0011	Develop electrical integrated systems*	20
UEEIC0024	Plan the electrical installation of integrated systems*	20
UEERA0005	Apply safety awareness and legal requirements for ammonia refrigerant	10
UEERA0007	Apply safety awareness and legal requirements for flammable refrigerants	10
UEERA0054	Maintain microbial control of refrigeration and air conditioning systems	20
UEERA0073	Resolve problems in ice making systems*	20
UEERA0075	Resolve problems in post-mix refrigeration systems*	20
UEERA0097	Install, commission, service and maintain variable refrigerant flow air conditioning systems*	40
UEERA0098	Inspect, test and repair fire and smoke control features of mechanical services systems*	80
Group C: Qualification elective units		Weighting Points
UEEEL0050	Install and replace low voltage current transformer metering*	20
UEEIC0009	Develop an electrical integrated system interface for access through a touch screen*	20

Group D: Qualification elective units		Weighting Points
UEECD0013	Develop and implement energy sector maintenance programs	60
UEEEL0011	Evaluate performance of low voltage electrical apparatus*	40
UEERA0040	Evaluate and report on the indoor air quality of buildings*	40

Qualification Mapping Information

This qualification replaces and is not equivalent to UEE50311 Diploma of Electrical and Refrigeration and Air-conditioning

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>