Australian Government

UEE33020 Certificate III in Electrical Fitting

Release 5

UEE33020 Certificate III in Electrical Fitting

Modification History

Release 5. Updated superseded elective units.

Release 4. Updated superseded elective units.

Release 3. Updated superseded imported units.

Release 2: This minor update is the second release of this qualification in the UEE Electrotechnology Training Package.

Two units added to general electives.

One elective unit that was in core removed from electives - was duplicate error.

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

Qualification Description

This qualification provides competencies to manufacture, fit, assemble, erect, operate, test, fault find, alter and repair electrical equipment and includes electrical wiring work only if that work is associated with assembling, maintaining, terminating or altering the wiring between electrical components within a plant or machinery. An electrical fitter is not authorised to install any electrical wiring systems within an electrical installation as prescribed by definitions contained in AS/NZS 3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)..

Electrical equipment means any appliance, article, accessory, wire, fitting, cable, conduit or apparatus that generates, uses, conveys or controls (or that is intended to generate, use, convey or control) electricity above extra-low voltage (ELV).

The skills and knowledge described in this qualification may require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this qualification may be subject to regulations directly related to licensing. Where a licence or permit to practice is not held, a relevant contract of training through an Australian Apprenticeship, may be required.

Licensing, legislative and regulatory requirements that apply to this qualification can vary between states and territories. Some jurisdictions require that the qualification is completed as an apprenticeship to obtain an Electrical Occupational License. Relevant information must be sourced prior to commencing the qualification. Where required for Licencing, the certification documentation issued must indicate if the qualification was completed as an apprenticeship or Trades Recognition Australia (TRA) pathway.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

A total of **1060 weighting points** comprising:

810 core weighting points listed below; plus

250 general elective weighting points.

General elective weighting points are to be selected from the Group A general elective units listed below, or up to **60 weighting points** of the general elective units 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-requisite 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**
HLTAID009	Provide cardiopulmonary resuscitation	10
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace	20
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
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

UEECO0023	Participate in electrical work and competency development activities	60
UEEEL0003	Arrange circuits, control and protection for electrical installations*	40
UEEEL0005	Develop and connect electrical control circuits*	80
UEEEL0014	Isolate, test and troubleshoot low voltage electrical circuits*	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
UEEEL0028	Conduct compliance and functional verification of electrical apparatus and existing circuits*	40
UEEEL0047	Identify, shut down and restart systems with alternate supplies*	20
UEERE0001	Apply environmentally and sustainable procedures in the energy sector	20

Group A: General elective units		**Weighting Points**
UEEAS0007	Assemble, mount and connect control gear and switchgear*	40
UEEAS0008	Fabricate and assemble bus bars*	40
UEEAS0009	Mount and wire control panel equipment*	40
UEECD0050	Use and maintain the integrity of a portable gas detection device*	20

UEECS0033	Use engineering applications software on personal computers	40
UEEDV0001	Assemble and connect telecommunication frames and cabinets*	60
UEEDV0005	Install and maintain cabling for multiple access to telecommunication services*	80
UEEDV0008	Install, modify and verify coaxial and structured communication copper cabling*	40
UEEEC0060	Repairs basic electronic apparatus faults by replacement of components*	40
UEEEC0075	Troubleshoot single phase input d.c power supplies*	40
UEEEL0004	Carry out basic repairs to electrical components and equipment*	40
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
UEEEL0016	Provide advice on effective and energy efficient lighting products	20
UEEEL0017	Repair and maintain mechanical components of electrical machines*	40
UEEEL0022	Supply effective and efficient lighting products for domestic and small commercial applications*	40
UEEEL0026	Align and install traction lift equipment*	20
UEEEL0033	Conduct electrical tests on LV electrical machines*	40
UEEEL0034	Conduct mechanical tests on electrical machines and components*	40
UEEEL0045	Diagnose and rectify faults in traction lift	80

	systems*	
UEEEL0046	Find and repair faults in LV d.c. electrical apparatus and circuits*	60
UEEEL0052	Maintain and service traction lift systems and equipment*	40
UEEEL0053	Maintain operation of electrical marine equipment and systems*	60
UEEEL0054	Maintain operation of electrical mining equipment and systems*	60
UEEEL0055	Overhaul and repair major switchgear and control gear*	60
UEEEL0056	Place and connect electrical coils*	40
UEEEL0061	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect*	20
UEEEL0066	Rewind LV direct current machines*	60
UEEEL0067	Rewind single phase machines*	40
UEEEL0068	Rewind three phase low voltage induction machines*	60
UEEEL0074	Wind electrical coils*	40
UEEHA0004	Enter a classified hazardous area to undertake work related to electrical equipment	40
UEEHA0022	Determine the explosion-protection requirements to meet a specified classified hazardous area*	40
UEEHA0025	Install explosion-protected equipment and associated apparatus and wiring systems*	60
UEEHA0026	Maintain equipment associated with hazardous areas*	60
UEEHA0031	Supervise repair and overhaul of explosion-protected equipment type flameproof (Ex d)*	60
UEEHA0032	Supervise repair and overhaul of	60

	explosion-protected equipment type increased safety (Ex e)*	
UEEHA0033	Supervise repair and overhaul of explosion-protected equipment type intrinsically safe (Ex i)*	60
UEEHA0034	Supervise repair and overhaul of explosion-protected equipment type pressurised (Ex p)*	60
UEEHA0035	Supervise repair and overhaul of explosion-protected rotating machines*	60
UEEHA0039	Supervise repair and overhaul of explosion-protected equipment type Group III ('t')*	60
UEEIC0002	Assemble, enter and verify operating instructions in microprocessor equipped devices*	20
UEEIC0013	Develop, enter and verify discrete control programs for programmable controllers*	60
UEEIC0015	Develop, enter and verify word and analogue control programs for programmable logic controllers*	60
UEEIC0022	Install instrumentation and control apparatus and associated equipment*	20
UEEIC0023	Install instrumentation and control cabling and tubing*	20
UEEIC0038	Solve problems in density/level measurement components and systems*	40
UEEIC0039	Solve problems in flow measurement components and systems*	40
UEEIC0041	Solve problems in pressure measurement components and systems*	40
UEEIC0043	Solve problems in temperature measurement components and systems*	40
UEEIC0047	Use instrumentation drawings, specifications, standards and equipment manuals*	40

UEERA0035	Establish the basic operating conditions of air conditioning systems*	20
UEERA0036	Establish the basic operating conditions of vapour compression systems*	60
UEERA0043	Find and rectify faults in appliance control systems and devices*	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
UEERA0049	Install and start up single head split air conditioning and water heating heat pump systems*	70
UEERA0050	Install refrigerant pipe work, flow controls and accessories*	60
UEERA0059	Prepare and connect refrigerant tubing and fittings*	40
UEERA0062	Recover and charge refrigerants*	40
UEERA0079	Safely handle refrigerants and lubricants*	40
UEERA0085	Service clothes washing machines and dryers*	40
UEERA0087	Service electrical heating appliances*	60
UEERA0089	Service refrigeration appliances*	60
UEERA0091	Service small electrical appliances and power tools*	60
UEERL0004	Disconnect - reconnect electrical equipment connected to low voltage (LV) installation wiring*	60
UEERL0005	Locate and rectify faults in low voltage (LV) electrical equipment using set procedures*	20
UEERL0006	Attach HV flexible cables and plugs*	40
UEERL0007	Disconnect-reconnect 3.3 kV electric propulsion components of self-propelled earth moving vehicles*	60

UEERL0008	Disconnect-reconnect explosion-protected appliances and control devices connected to LV installation*	60
UEERS0021	Assemble and wire rail signalling equipment*	30
UEERS0036	Repair rail signalling power and control cables*	40
UEERS0037	Test copper rail signalling cables*	20
UETDRIS017	Perform high voltage field switching operation to a given schedule*	40
UETDRIS018	Perform low voltage field switching operation to a given schedule*	50
UETDRIS031	Maintain insulating oil*	40
UETDRIS032	Solve problems in network equipment*	80
UETDRIS033	Solve problems in network protection*	40
UETDRMP007	Perform rescue from a live low voltage panel*	20
UETDRSB001	Perform substation switching operations to a given schedule	50
UETDRSB010	Maintain capacitor bank equipment*	40

Qualification Mapping Information

This qualification replaces and is not equivalent to UEE33011 Certificate III in Electrical Fitting

Links

Companion Volume Implementation Guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6