Australian Government

Department of Education, Employment and Workplace Relations

UEE30811 Certificate III in Electrotechnology Electrician

Release: 1

UEE30811 Certificate III in Electrotechnology Electrician

Modification History

Not applicable.

Description

Scope
This qualification provides competencies to select, install, set up, test, fault find, repair and maintain electrical systems and equipment in building and premises. 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 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 140 points in accordance with the Elective Competency Standard Units table below.

Core Competency Standard Units All Core competency standard units to be achieved		**Weighting Points**
UEENEEC020B	Participate in electrical work and competency development activities	60
UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace	20
UEENEEE102A	Fabricate, dismantle, assemble of utilities industry components	40
UEENEEE104A	Solve problems in d.c. circuits 5021-112-130 Metric Notation 5021-112-160 Voltage and Current 5021-112-190 Resistors 5021-112-220 Switches, Fuses, and Circuit Breakers 5021-112-250 Tools for Electronic Troubleshooting 5021-112-910 Introduction to Electricity Post-Test (Theory) 5021-114-130 Magnetism, Relays, and Meters 5021-114-160 Introduction to Multimeters 5021-114-190 Multimeter Use 5021-114-220 Voltage Measurements 5021-114-250 Current Measurements 5021-114-280 Resistance Measurements 5021-114-910 Multimeter Use Post-Test (Theory) 5021-116-130 Ohm's Law and Power . . 5 5021-116-160 Series Circuits . 6A 5021-116-190 Series Circuit Troubleshooting Theory 5021-116-220 Series Circuit Troubleshooting Experiment . 6A 5021-116-250 Series Circuit Troubleshooting Practice . 6A 5021-116-280 Parallel Circuits .. . 8A 5021-116-310 Parallel Circuit Troubleshooting Theory . 5021-116-340 Parallel Circuit Troubleshooting Experiment . .8A 5021-116-370 Parallel Circuit Troubleshooting Practice . 8A 5021-116-400 Series-Parallel Circuits . 9A 5021-116-430 Series-Parallel Circuit Troubleshooting Theory 5021-116-460 Series-Parallel Circuit Troubleshooting Experiment 9A 5021-116-490 Series-Parallel Circuit Troubleshooting	80

Core Competency Standard Units All Core competency standard units to be achieved		**Weighting Points**
	Practice .9A 5021-116-920 Basic DC Circuits Post-Test (Theory) 5021-118-130 Voltage Divider Circuits 9C 5021-118-160 Bridge Circuits 10A 5021-118-190 Introduction to Kirchhoff's Voltage and Current Laws 9C 5021-118-220 Kirchhoff's Voltage and Current Laws 9C 5021-118-310 Multimeter Loading 9C 5021-318-130 Introduction to Capacitors 5021-318-160 Capacitor Identification 11 5021-320-160 RC Time Constants Operation 15 5021-326-130 Relays 5021-326-160 Relay Operation Experiment . 84B 5021-326-190 Troubleshooting Relays and Switches 84B 5021-326-220 Electrical Circuits . 5021-326-250 Electrical Circuits Experiment . 82, 83 5021-326-280 Electrical Circuits Troubleshooting 82, 83 5021-326-920 Relays and Switches Post-Test (Theory) 5021-114-960 Multimeter Use Post-Test (Performance) . . . . . 2W, 4AW 5021-116-960 Basic DC Circuits Post-Test (Performance) 9AW	
UEENEEE105A	Fix and secure electrotechnology equipment	20
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications 5021-112-280 Schematic Diagrams	40
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 5021-114-130 Magnetism, Relays, and Meters 5142-310-130 Magnetism and Electromagnetic Principles . . 182, 183 5142-310-160 Magnetic Calculations 5142-314-130 DC Series Field Motors 5142-314-160 Brushless DC Motors 5142-312-130 Introduction to Rotating Machinery	60

Core Competency Standard Units All Core competency standard units to be achieved		**Weighting Points**
	5142-312-160 DC Motors and Generators . 180	
UEENEEG102A	Solve problems in low voltage a.c. circuits 5021-312-130 Alternating Current 5021-312-160 Generating AC Electricity 5021-312-190 Non-Sinusoidal Waves 5021-312-220 Resistance in AC Circuits 5021-312-920 Introduction to AC Post-Test (Theory) 5020-314-130 Introduction to Oscilloscopes 5020-314-160 Oscilloscope Use 10, 804 5020-314-190 Oscilloscope Use with Function Generator . 10 5020-314-430 Introduction to the Function Generator 5020-314-460 Function Generator Use 10 5020-314-730 Introduction to the Frequency Counter 5020-314-760 Frequency Counter Use . 10 5020-314-920 AC Test Equipment Post-Test (Theory) 5021-316-130 Introduction to Inductors 5021-316-160 Inductor Identification . 11 5021-316-190 RL Series Circuits . 5021-316-220 RL Series Circuit Operation 13 5021-316-250 RL Series Circuit Troubleshooting Experiment. 16B 5021-316-310 RL Parallel Circuits . 5021-316-340 RL Parallel Circuit Operation 13 5021-316-370 RL Parallel Circuit Troubleshooting Experiment .16B 5021-316-430 RL Filters 16B 5021-316-920 Induction and RL Circuits Post-Test (Theory) 5021-318-190 RC Series Circuits 5021-318-220 RC Series Circuit Operation . 12 5021-318-250 RC Series Circuit Troubleshooting Experiment 14A 5021-318-340 RC Parallel Circuits 5021-318-370 RC Parallel Circuit Operation . 12 5021-318-400 RC Parallel Circuit Troubleshooting Experiment 14A 5021-318-490 RC Filters . 14A, 14B 5021-318-920 Capacitance and RC Circuits Post-Test (Theory) 5021-320-130 RC and RL Time Constants 5021-320-160 RC Time Constants Operation 15 5021-320-190 RC Circuit Transient Analysis 5021-320-220 RC Circuit Transient Experiment . 14A 5021-320-250 RC Circuit Transient Troubleshooting Experiment 14A 5021-320-920 RC Time Constants and Transients Post-Test (Theory) 5021-322-130 Capacitive/Inductive Reactance and LCR Circuits . 5021-322-160 Series and Parallel LCR Circuit	80

Core Competency Standard Units All Core competency standard units to be achieved		**Weighting Points**
360	Experiment 17, 19 5021-322-190 LCR Circuit Troubleshooting . 18A 5021-322-220 Series Resonance 5021-322-250 Series Resonant Circuits . 18A 5021-322-280 Parallel Resonance. 5021-322-310 Parallel Resonant Circuits 20A 5021-322-340 Resonant Circuit Troubleshooting Experiment .18A, 20A 5021-322-920 Resonance Post-Test (Theory) 7231-714-130 3-Phase Fundamentals . . . . . . ES151, ES152, ES153, ES154, ES155, ES156 5020-314-960 AC Test Equipment Post-Test (Performance) 10W, 804W 5021-316-960 Inductance and RL Circuits Post-Test (Performance) .16BW 5021-318-960 Capacitance and RC Circuits Post-Test (Performance) .14AW 5021-320-960 RC Time Constants and Transients Post-Test (Performance 14BW, 804W 5021-322-960 Resonance Post-Test (Performance) . 18AW 5021-324-960 Transformers Post-Test (Performance) 21W 5021-326-960 Relays and Switches Post-Test (Performance) 84BW	
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 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 **360**	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits 7211-112-130 Systems Familiarization . . . . . . ST101, ST102, ST103, ST104, ST105, ST106 7211-112-160 Systems Safety 7211-112-190 Multimeter Familiarization . . . . . . ST101, ST102, ST103, ST104, ST105, ST106 7211-112-220 Oscilloscope Familiarization . . . . . . ST101, ST102, ST103, ST104, ST105, ST106 7211-116-160 System Maintenance and Diagnostics . . . . . ST101, ST102, ST103, ST104, ST105,ST106 7211-116-190 System Malfunctions and Troubleshooting ST101, ST102, ST103, ST104,	40

Core Competency Standard Units All Core competency standard units to be achieved		**Weighting Points**
	ST105 ST106	
UEENEEG109A	Develop and connect electrical control circuits	80
UEENEEK142A	Apply environmental and sustainable procedures in the energy sector	20
Total points in core		**920**

Elective Competency Standard Units Complete Elective units to achieve a total of weighting of 140 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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points.	0	60
B	**Qualification Elective Units** You may select all your elective units from this Group	80	140

Group A – Imported and Common Elective Units You may complete units to a maximum weighting of 60		**Weighting Points**
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
UEENEED101A	Use basic computer applications relevant to a energy sector workplace	20
UEENEEE009B	Comply with scheduled and preventative maintenance program processes	20
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus	20
CPCCOHS1001A	Work safely in the construction industry	10
HLTCPR201B	Perform CPR	10
HLTFA301C	Apply first aid	10

	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 3. If units have not being assigned a weighting by the relevant EE-Oz Industry Technical Advisory Committee, their weighting will be 10 points. Note: For further information see Application of the NQC Flexibility Formula, UEE11 Electrotechnology Training Package, Version 1, Volume 1 Qualification Framework	Up to 60 points

Group B – Qualification Elective Units Complete units to a minimum weighting of 80 You may select all your elective units from this Group		**Weighting Points**
UEENEEA110A	Assemble, mount and connect control gear and switchgear	40
UEENEEA112A	Fabricate and assemble bus bars	40
UEENEEA113A	Mount and wire control panel equipment	40
UEENEED104A	Use software for engineering applications	40
UEENEEE121A	Plan an residential integrated cabling system	40
UEENEEF102A	Install and maintain cabling for multiple access to telecommunication services 5102-312-130 Introduction to Communications Systems 5102-312-160 Telephone Systems 5102-312-190 Telephone Equipment . . 337(2) 5102-314-130 Fundamentals of Telecommunications 5102-314-160 Telecommunications Careers 5102-314-190 History of Telecommunications 5102-314-220 Special Interest Groups . . . . . 5102-314-250 Telecommunications Terminology 5102-314-310 Connection Links . . 5102-314-340 Introduction to Network Switching . 5102-314-370 Broadcast Systems . . 5102-314-400 Spread Spectrum Modulation . 5102-314-430 Cellular Telephony . 5102-314-460 Information Systems . . 5102-314-490 Satellite Systems	120
UEENEEF104A	Install and modify performance data communication copper cabling	40
UEENEEG110A	Diagnose and rectify faults in d.c. electrical apparatus and circuits	60
UEENEEG111A	Carry out repairs to electrical apparatus	40
UEENEEG113A	Install and maintain emergency and safety systems.	60
UEENEEG116A	Diagnose and rectify faults in lifts/escalator systems	80
UEENEEG118A	Maintain operation of electrical mining equipment and systems	60
UEENEEG119A	Maintain the operation of electrical marine equipment and systems	60
UEENEEG120A	Select and arrange circuits and equipment for special electrical installations	60
UEENEEG126A	Install and maintain LV field power and distribution systems with a demand up to 200 A per phase	40

UEENEEG129A	Overhaul and repair switchgear and controlgear	60
UEENEEG150A	Wind electrical coils	40
UEENEEG151A	Place and connect electrical coils	40
UEENEEG152A	Rewind single phase machines	40
UEENEEG153A	Rewind LV three phase induction machines rated for low voltage	60
UEENEEG154A	Rewind LV direct current machines	60
UEENEEG157A	Conduct electrical tests on LV electrical machines	40
UEENEEG159A	Conduct mechanical tests of LV electrical machines	40
UEENEEG164A	Repair mechanical and electrical components of electrical machines	40
UEENEEG165A	Maintain and service electrical traction lifts	40
UEENEEG166A	Installation and maintenance of escalators, tread ways and moving walks	40
UEENEEG167A	Align and install lift components and equipment	20
UEENEEG171A	Install, set up and commission interval metering	20
UEENEEG181A	Provide advice on effective and energy efficient lighting products	20
UEENEEG182A	Supply effective and efficient lighting products for domestic and small commercial applications	40
UEENEEG183A	Provide advice on the application of energy efficient lighting for ambient and aesthetic effect	20
UEENEEG189A	Install and maintain emergency lighting systems	40
UEENEEH102A	Repair basic electronic apparatus faults by replacement of components	40
UEENEEH111A	Troubleshoot single phase input d.c. power supplies 5021-518-130 Introduction to Power Supplies and Diode Rectifiers 5021-518-160 Full- and Half-Wave Rectifier Operation 23 5021-518-190 Bridge Rectifier Operation 24 5021-518-220 Introduction to Voltage Regulators . 5021-518-250 Zener Diode Operation . . 22B 5021-518-280 Zener Diode Regulator Operation 23, 25 5021-518-310 Voltage Regulator Operation 23, 26 5021-518-340 Voltage Regulator Troubleshooting Experiment 23, 25, 26 5021-518-400 IC Regulator Operation . 74 5021-518-430 Voltage Doubler Operation 27 5021-518-920 Power Supplies Post-Test (Theory) 5021-518-960 Power Supplies Post-Test (Performance) 23W, 25W, 26W	40

UEENEEH150A	Assemble and set up basic wired and wireless security systems	80
UEENEEI140A	Plan the electrical installation of integrated systems	20
UEENEEI141A	Develop electrical integrated systems	20
UEENEEI101A	Use instrumentation drawings, specifications, standards and equipment manuals	40
UEENEEI102A	Solve problems in pressure measurement circuits and systems	40
UEENEEI103A	Solve problems in density/level measurement circuits and systems	40
UEENEEI104A	Solve problems in flow measurement circuits and systems	40
UEENEEI105A	Solve problems in temperature measurement circuits and systems	40
UEENEEI116A	Enter and verify operating instructions in microprocessor equipped devices **Introduction to Microprocessors** 5082-212-130 Introduction to Microprocessors . 5082-212-160 Basic Microprocessor Operations 5082-212-190 Microprocessor Number Systems **68000 Microprocessor Circuits** 5082-228-130 Introduction to 68000 Microprocessors 5082-228-160 The 68000 Microprocessor . . . . . 401, 403, 404, 468 5082-228-190 Registers and Memory . . . . . 401, 403, 404, 468 5082-228-220 I/O Circuits . . . . . 401, 403, 404, 468 5082-228-250 Operation of the 68000 . . . . . 401, 403, 404, 468 5082-228-280 Introduction to Programming . . . . . 401, 403, 404, 468 5082-228-310 Move and Branch Commands . . . . . 401, 403, 404, 468 5082-228-340 Arithmetic and Logic Commands . . . . . 401, 403, 404, 468 5082-228-370 Test and Additional Commands . . . . . 401, 403, 404, 468 5082-228-400 Debugging and Compatibility . . . . . 401, 403, 404, 468 5082-228-430 Troubleshooting the 68000 . . . . . 401, 403, 404, 468	20
UEENEEI150A 5050 Trainer not HTML	Develop, enter and verify discrete control programs for programmable controllers **Programmable Logic Controllers** 9395N101 Introduction to PLCs 5050-1 9395N105 PLC Trainer Familiarization 5050-1 9395N102 PLC Hardware 5050-1 9395N103 PLC Programming 5050-1	60

	9395N104 PLC Troubleshooting. 5050-1,2 **Introduction to Programming** 9395N200 RSLogix Familiarization 9395N201 APS Familiarization 9395N202 Bit Instructions 5050-1 9395N203 Timer and Counter Instructions 9395N204 I/O and Interrupt Instructions 9395N205 Comparison Instructions 9395N206 Math Instructions 9395N207 Move and Logical Instructions 9395N208 File Instructions 9395N209 Bit Shift, FIFO, and LIFO Instructions 9395N210 Sequencer Instructions 9395N211 Control Instructions **Applied Programmable Logic Controllers** 9395N301 Traffic Light Control Scenario 5050-1,3 9395N302 Elevator Control Scenario 5050-1,4 9395N303 Security Control Scenario 5050-5 9395N304 Amusement Ride Scenario 5050-1,6 9395N305 Power Management System Scenario 5050-7	

UEENEEJ102A	Prepare and connect refrigerant tubing and fittings	30
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems	60
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems	20
UEENEEK125A **360**	Solve basic problems in photovoltaic energy apparatus and systems **Introduction** 7231-112-130 Introduction to Renewable Energy Systems 7231-112-160 Energy Sources and Site Surveys . **Home Energy Systems** 7231-114-130 Home Solar Energy System Fundamentals . . . ES101, ES102, ES104, ES105, ES106, ES107 7231-114-160 Home Wind Energy System Fundamentals . . . ES101, ES102, ES104, ES105, ES106, ES107, ES182 7231-114-190 Home Hybrid Energy System Fundamentals . . . . . ES101, ES102, ES104, ES105, ES106, ES107, ES182 7231-114-220 Home Energy System Maintenance and Diagnostics . . ES101, ES102, ES104, ES105, ES106, ES107, ES182 7231-114-250 Home Energy System Malfunctions and Troubleshooting . . . . . ES101, ES102, ES104, ES105, ES106, ES107 7231-114-920 Home Energy Systems Post-Test (Theory) . . . . . --- **Solar Energy Systems** 7231-118-130 Solar Thermal System Fundamentals 7231-118-160 Solar Photovoltaic System Fundamentals . . . . ES101, ES102, ES104, ES107, ES108, ES109 7231-118-190 Solar Photovoltaic System Maintenance and Diagnostics . . . . . ES101, ES102, ES104, ES107, ES108, ES109 7231-118-220 Solar Photovoltaic System Malfunctions and Troubleshooting . ES101, ES102, ES104, ES107, ES108, ES109 7231-118-920 Commercial Solar Energy Systems Post-Test (Theory) . . . . . ---	20
UEENEEK148A **360**	Install, configure and commission photovoltaic grid connected power systems **Solar Energy Systems** 7231-118-130 Solar Thermal System Fundamentals 7231-118-160 Solar Photovoltaic System Fundamentals . . . . ES101, ES102, ES104, ES107, ES108, ES109 7231-118-190 Solar Photovoltaic System Maintenance and Diagnostics ES101, ES102, ES104, ES107, ES108, ES109	40

	7231-118-220 Solar Photovoltaic System Malfunctions and Troubleshooting . ES101, ES102, ES104, ES107, ES108, ES109 7231-118-920 Commercial Solar Energy Systems Post-Test (Theory) . . . . . ---	

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
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining	60
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres	60
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres	60
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation	60
UEENEEM027A	Maintain equipment in hazardous areas — coal mining	60
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres	60
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres	60
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation	60
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining	40
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres	40
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres	40
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation	40
UEENEEM042A	Conduct visual inspection of hazardous areas installations	40
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
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment	30
UEENEEN103A	Install and maintain rail track circuit leads and bonds	30
UEENEEN104A	Test rail signalling cables	20
UEENEEN121A	Repair rail signalling power and control cables	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

Unit Grid

UEENEEC020B	Participate in electrical work and competency development activities
UEENEEE101A	Apply Occupational Health Safety regulations, codes and practices in the workplace
UEENEEE102A	Fabricate, dismantle, assemble of utilities industry components
UEENEEE104A	Solve problems in d.c. circuits
UEENEEE105A	Fix and secure electrotechnology equipment
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications
UEENEEE137A	Document and apply measures to control OHS risks associated with electrotechnology work
UEENEEG006A	Solve problems in single and three phase low voltage machines
UEENEEG033A	Solve problems in single and three phase low voltage electrical apparatus and circuits
UEENEEG063A	Arrange circuits, control and protection for general electrical installations
UEENEEG101A	Solve problems in electromagnetic devices and related circuits
UEENEEG102A	Solve problems in low voltage a.c. circuits
UEENEEG103A	Install low voltage wiring and accessories
UEENEEG104A	Install appliances, switchgear and associated accessories for low voltage electrical installations
UEENEEG105A	Verify compliance and functionality of low voltage general electrical installations
UEENEEG106A	Terminate cables, cords and accessories for low voltage circuits
UEENEEG107A	Select wiring systems and cables for low voltage general electrical installations
UEENEEG108A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits
UEENEEG109A	Develop and connect electrical control circuits
UEENEEK142A	Apply environmental and sustainable procedures in the energy sector
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
UEENEED101A	Use basic computer applications relevant to a energy sector workplace
UEENEEE009B	Comply with scheduled and preventative maintenance program processes
UEENEEE020B	Provide basic instruction in the use of electrotechnology apparatus
CPCCOHS1001A	Work safely in the construction industry

HLTCPR201B Perform CPR
HLTFA301C Apply first aid
UEENEEA110A Assemble, mount and connect control gear and switchgear
UEENEEA112A Fabricate and assemble bus bars
UEENEEA113A Mount and wire control panel equipment
UEENEED104A Use software for engineering applications
UEENEEE121A Plan an residential integrated cabling system
UEENEEF102A Install and maintain cabling for multiple access to telecommunication services
UEENEEF104A Install and modify performance data communication copper cabling
UEENEEG110A Diagnose and rectify faults in d.c. electrical apparatus and circuits
UEENEEG111A Carry out repairs to electrical apparatus
UEENEEG113A Install and maintain emergency and safety systems.
UEENEEG116A Diagnose and rectify faults in lifts/escalator systems
UEENEEG118A Maintain operation of electrical mining equipment and systems
UEENEEG119A Maintain the operation of electrical marine equipment and systems
UEENEEG120A Select and arrange circuits and equipment for special electrical installations
UEENEEG126A Install and maintain LV field power and distribution systems with a demand up to 200 A per phase
UEENEEG129A Overhaul and repair switchgear and controlgear
UEENEEG150A Wind electrical coils
UEENEEG151A Place and connect electrical coils
UEENEEG152A Rewind single phase machines
UEENEEG153A Rewind LV three phase induction machines rated for low voltage
UEENEEG154A Rewind LV direct current machines
UEENEEG157A Conduct electrical tests on LV electrical machines
UEENEEG159A Conduct mechanical tests of LV electrical machines
UEENEEG164A Repair mechanical and electrical components of electrical machines
UEENEEG165A Maintain and service electrical traction lifts
UEENEEG166A Installation and maintenance of escalators, tread ways and moving walks
UEENEEG167A Align and install lift components and equipment
UEENEEG171A Install, set up and commission interval metering
UEENEEG181A Provide advice on effective and energy efficient lighting products
UEENEEG182A Supply effective and efficient lighting products for domestic and small commercial applications
UEENEEG183A Provide advice on the application of energy efficient lighting for ambient and aesthetic effect
UEENEEG189A Install and maintain emergency lighting systems
UEENEEH102A Repair basic electronic apparatus faults by replacement of components
UEENEEH111A Troubleshoot single phase input d.c. power supplies
UEENEEH150A Assemble and set up basic wired and wireless security systems
UEENEEI140A Plan the electrical installation of integrated systems
UEENEEI141A Develop electrical integrated systems
UEENEEI101A Use instrumentation drawings, specifications, standards and equipment manuals
UEENEEI102A Solve problems in pressure measurement circuits and systems
UEENEEI103A Solve problems in density/level measurement circuits and systems

UEENEEI104A	Solve problems in flow measurement circuits and systems
UEENEEI105A	Solve problems in temperature measurement circuits and systems
UEENEEI116A	Enter and verify operating instructions in microprocessor equipped devices
UEENEEI150A	Develop, enter and verify discrete control programs for programmable controllers
UEENEEJ102A	Prepare and connect refrigerant tubing and fittings
UEENEEJ103A	Establish the basic operating conditions of vapour compression systems
UEENEEJ104A	Establish the basic operating conditions of air conditioning systems
UEENEEK125A	Solve basic problems in photovoltaic energy apparatus and systems
UEENEEK148A	Install, configure and commission photovoltaic grid connected power systems
UEENEEM019A	Attend to breakdowns in hazardous areas — coal mining
UEENEEM020A	Attend to breakdowns in hazardous areas — gas atmospheres
UEENEEM021A	Attend to breakdowns in hazardous areas — dust atmospheres
UEENEEM022A	Attend to breakdowns in hazardous areas — pressurisation
UEENEEM023A	Install explosion-protected equipment and wiring systems — coal mining
UEENEEM024A	Install explosion-protected equipment and wiring systems — gas atmospheres
UEENEEM025A	Install explosion-protected equipment and wiring systems — dust atmospheres
UEENEEM026A	Install explosion-protected equipment and wiring systems — pressurisation
UEENEEM027A	Maintain equipment in hazardous areas — coal mining
UEENEEM028A	Maintain equipment in hazardous areas — gas atmospheres
UEENEEM029A	Maintain equipment in hazardous areas — dust atmospheres
UEENEEM030A	Maintain equipment in hazardous areas — pressurisation
UEENEEM038A	Conduct testing of hazardous areas installations — coal mining
UEENEEM039A	Conduct testing of hazardous areas installations — gas atmospheres
UEENEEM040A	Conduct testing of hazardous areas installations — dust atmospheres
UEENEEM041A	Conduct testing of hazardous area installations — pressurisation
UEENEEM042A	Conduct visual inspection of hazardous areas installations
UEENEEM076A	Use and maintain the integrity of a portable gas detection device
UEENEEM077A	Install and maintain the integrity of fixed gas detection equipment
UEENEEM080A	Report on the integrity of explosion-protected equipment in a hazardous area
UEENEEN102A	Assemble and wire internal electrical rail signalling equipment
UEENEEN103A	Install and maintain rail track circuit leads and bonds
UEENEEN104A	Test rail signalling cables
UEENEEN121A	Repair rail signalling power and control cables

Custom Content Section

Not applicable.