

UET60319 Advanced Diploma of ESI - Power Systems Operations

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Modification History

Release 1. This is the first release of this qualification in the UET Transmission, Distribution and Rail Sector Training Package

Qualification Description

This qualification provides the skills and knowledge to work in the electricity supply industry (ESI) as a Power Systems Senior Technical Officer or a Power Transmission and Distribution System Engineer.

This qualification covers high-level managerial, design, testing and system operation functions in the transmission and distribution sectors of the ESI. These roles may also install, commission, maintain, diagnose and repair the hardware and software of complex power system protection, control and metering systems.

The skills and knowledge described within the units in this qualification may require a licence or permit to practice in the workplace.

Additional and/or other conditions may also apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing the qualification.

Entry Requirements

There are no entry requirements for this qualification

Packaging Rules

A total of **2060 weighting points** comprising:

970 core weighting points listed below; plus

1090 general elective weighting points from the general elective units listed below.

Choose a total of 1090 **weighting points** elective units from the list below, of which between 0 and 360 **weighting points** can be taken from Group A; between 0 and 360 **weighting points** can be taken from Group B; between 0 and 200 **weighting points** can be taken from Group C and between 140 and 650 **weighting points** can be taken from Group D and between 440 and 950 **weighting points** taken from Group E.

Up to 360 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 UET Transmission, Distribution and Rail Sector Training Package Companion Volume Implementation Guide, if not listed

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weighting points will be 10 points.

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

Core units		Weighting Points
UEENEED104A	Use engineering applications software on personal computers	40
	☐ UEENEEE101A Apply Occupational Health Safety regulations, codes and practices in the workplace	
UEENEEE083A	Establish and follow a competency development plan in an electrotechnology engineering discipline	120
UEENEEE101A	Apply Occupational Health and Safety regulations, codes and practices in the workplace	20
UEENEEE104A	Solve problems in d.c. circuits	80
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
UEENEEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	40
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
UEENEEE124A	Compile and produce an energy sector detailed report	60
UEENEEE125A	Provide engineering solutions for problems in complex multiple path circuits	60
	☐ UEENEEE126A Provide solutions to basic engineering computational problems	
UEENEEE126A	Provide solutions to basic engineering computational problems	60
	∟ UEENEEE029B Solve electrotechnical problems	
	or	
	∟ UEENEEG102A Solve problems in low voltage a.c. circuits	
	or	
	∟ UEENEEH014B Troubleshoot frequency dependent circuits	
UEENEEG101A	Solve problems in electromagnetic devices and related	60

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	circuits	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE104A Solve problems in d.c. circuits	
UEENEEG102A	Solve problems in low voltage a.c. circuits	80
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE104A Solve problems in d.c. circuits	
UEENEEG149A	Provide engineering solutions to problems in complex polyphase power circuits	60
	☐ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits	
	and	
	☐ UEENEEG102A Solve problems in low voltage a.c. circuits	
UETTDREL11	Apply sustainable energy and environmental procedures	20
UETTDREL15	Respond to power systems technical enquiries and requests	40
UETTDREL16	Working safely near live electrical apparatus	20
UETTDRIS62	Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	30
	Common Unit Group	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	☐ UETTDREL16 Working safely near live electrical apparatus	
UETTDRIS63	Implement & monitor power system environmental & sustainable energy management policies & procedures	30
	Electrotechnology Pathway Unit Group	
	☐ UEENEEK142A Apply environmentally and sustainable procedures in the energy sector	
	ESI - TDR Pathway Unit Group	
	☐ UETTDREL11 Apply sustainable energy and	

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environmental procedures

UETTDRSO45	Operate and monitor system SCADA equipment	150
	Common Unit Group	
	∟UETTDREL15 Respond to power systems technical	
	enquiries and requests	

Group A: Imported and common elective units		Weighting Points
BSBCUS501	Manage quality customer service	40
BSBFIM501	Manage budgets and financial plans	70
BSBINM501	Manage an information or knowledge management system	50
BSBINN502	Build and sustain an innovative work environment	50
BSBLED501	Develop a workplace learning environment	60
BSBMGT502	Manage people performance	70
BSBMGT516	Facilitate continuous improvement	60
BSBMGT517	Manage operational plan	60
BSBSUS501	Develop workplace policy and procedures for sustainability	50
BSBWOR501	Manage personal work priorities and professional development	60
BSBWOR502	Lead and manage team effectiveness	60
TLIF2010	Apply fatigue management strategies	30
TLIF3063	Administer the implementation of fatigue management strategies	50
Group B: Qualification elective units		Weighting Points
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components	40
	☐ UEENEEE101A Apply Occupational Health and	

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Safety regulations, codes and practices in the workplace

UEENEEG006A	Solve problems in single and three phase low voltage machines	80
	□ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of electrotechnology components	
	∟UEENEEE104A Solve problems in d.c. circuits	
	∟UEENEEE105A Fix and secure electrotechnology equipment	
	∟UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage a.c. circuit	
	∟UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
UEENEEH102A	Repairs basic electronic apparatus faults by replacement of components	40
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
UEENEEH112A	Troubleshoot digital sub-systems	80
	LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	☐ UEENEEH102A Repair basic electronic apparatus faults by replacement of components	
UEENEEH139A	Troubleshoot basic amplifier circuits	40
	∟UEENEEH102A Repair basic electronic apparatus faults by replacement of components	
	AND	
	∟UEENEEH114A Troubleshoot resonance circuits in an electronic apparatus	
	OR	
	∟UEENEEG102A Solve problems in low voltage a.c.	

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circuits

UETTDRIS67	Solve problems in energy supply network equipment	80
czi zata	Common Unit Group	00
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components	
	LUEENEEE104A Solve problems in d.c. circuits	
	∟UEENEEE105A Fix and secure electrotechnology equipment	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage a.c. circuits	
	∟UEENEEG006A Solve problems in single and three phase low voltage machines	
UETTDRIS68	Solve problems in energy supply network protection equipment and systems	40
	Common Unit Group	
	□ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, assemble and dismantle 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	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage a.c. circuits	
	∟UEENEEG006A Solve problems in single and three	

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phase low voltage machines

∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits ∟ UETTDRIS67 Solve problems in energy supply network equipment **Group C: Qualification elective units Weighting Points UEENEED117A** Install and configure network systems for 120 internetworking LUEENEEE101A Apply Occupational Health Safety regulations, codes and practices in the workplace **UEENEEI155A** Develop structured programs to control external devices 40 LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace Draft and layout a power system overhead distribution UETTDRDS31 60 extension Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

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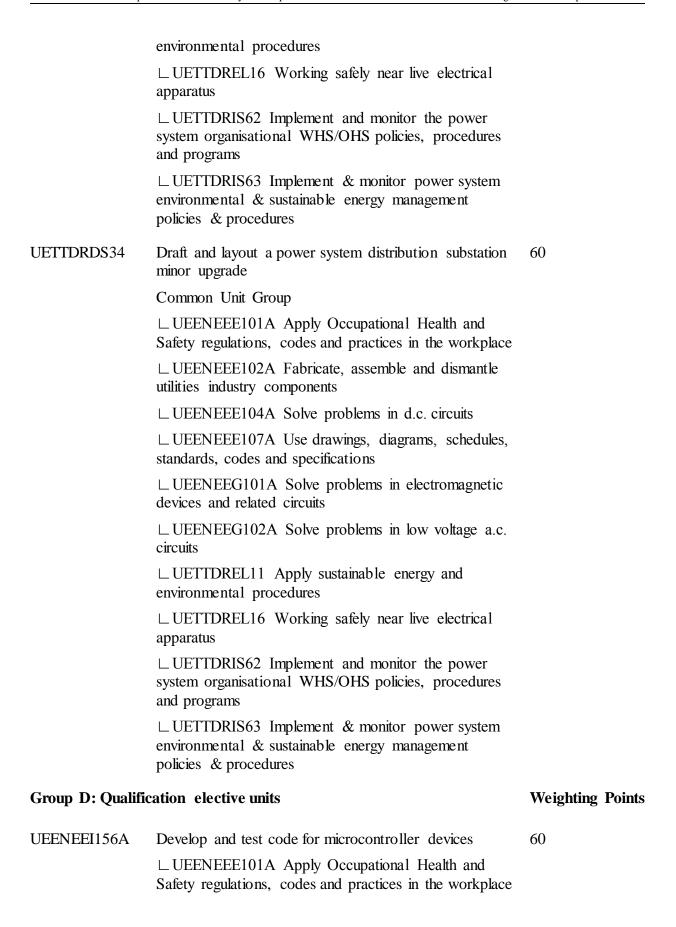
UETTDRDS32

60

distribution extension Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits □ UEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRDS33** Draft and layout a power system street lighting system 60 Common Unit Group LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDREL11 Apply sustainable energy and

Draft and layout a power system underground

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Australian Industry Standards

UETTDRDS35 Design overhead distribution power systems Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits ∟ UEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Pathway Unit Group 1 ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys Pathway Unit Group 2 ∟ UETTDRDS43 Develop high voltage and low voltage

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distribution protection systems

UETTDRDS36 Design underground distribution power systems Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEE102A Fabricate, assemble and dismantle utilities industry components ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits □ UEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Pathway Unit Group 1 ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys Pathway Unit Group 2 ∟ UETTDRDS43 Develop high voltage and low voltage distribution protection systems

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UETTDRDS37 Design power system distribution substations Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEE102A Fabricate, assemble and dismantle utilities industry components ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits □ UEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Pathway Unit Group 1 ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys Pathway Unit Group 2 ∟ UETTDRDS43 Develop high voltage and low voltage

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distribution protection systems

UETTDRDS38 Design power system public lighting systems Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits ∟ UEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Pathway Unit Group 1 ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys Pathway Unit Group 2 ∟ UETTDRDS43 Develop high voltage and low voltage

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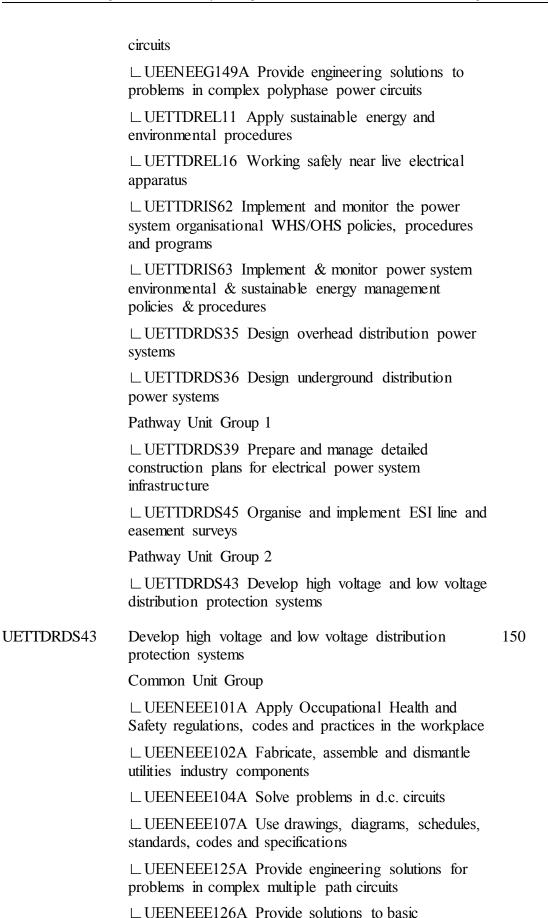
distribution protection systems

UETTDRDS39

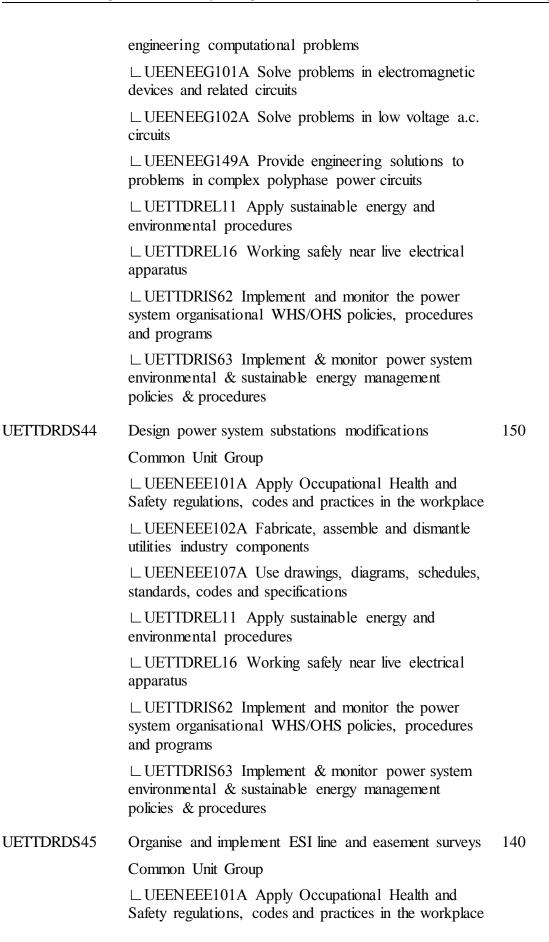
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Prepare and manage detailed construction plans for electrical power system infrastructure Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE104A Solve problems in d.c. circuits LUEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRDS42** Investigate quality of power systems supply issues 140 Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c.

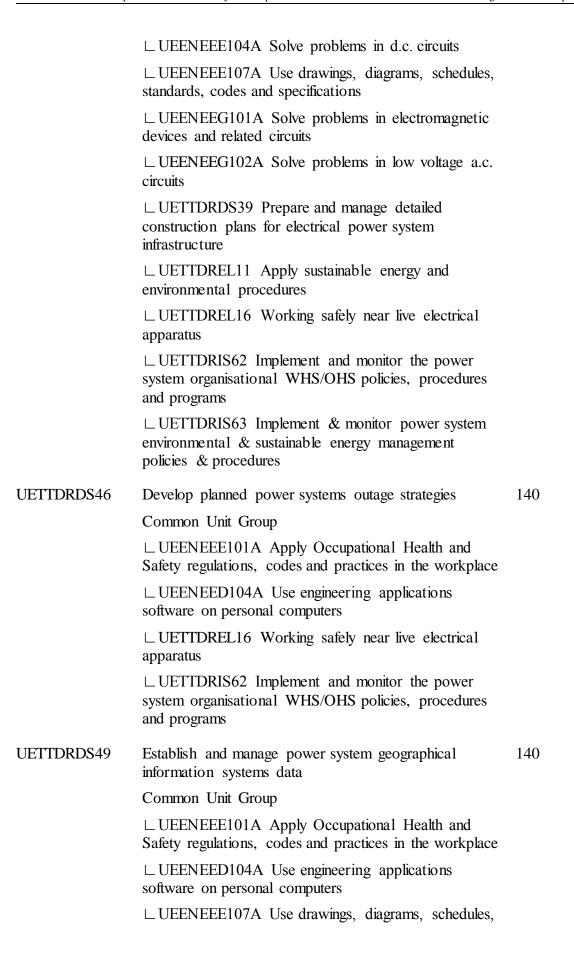
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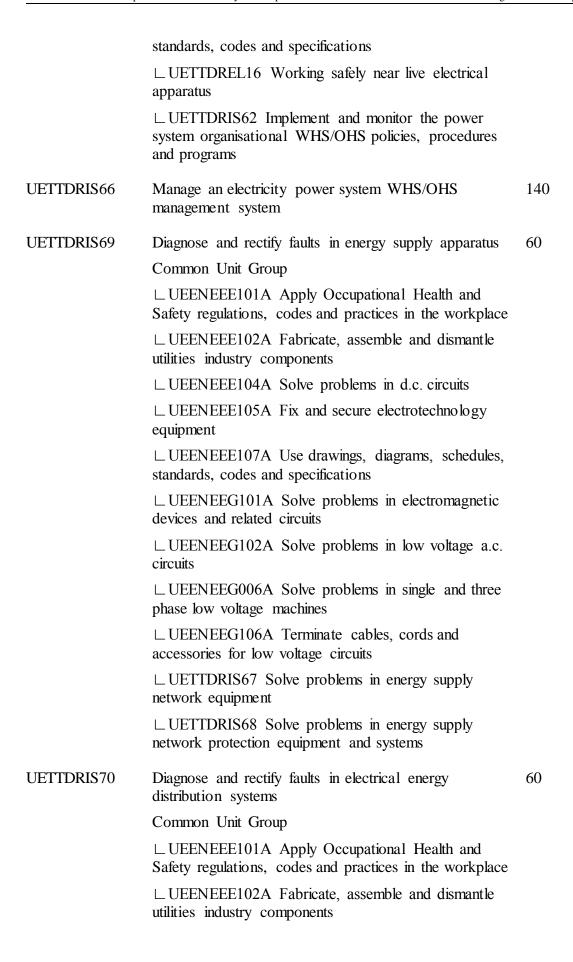
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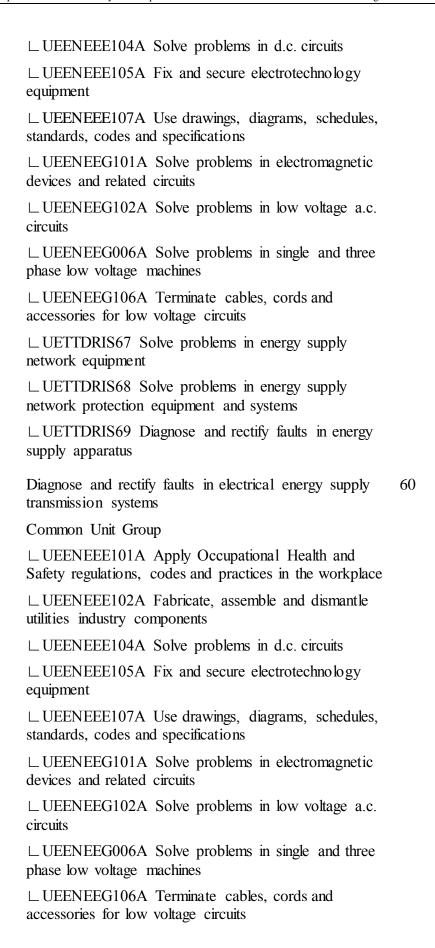
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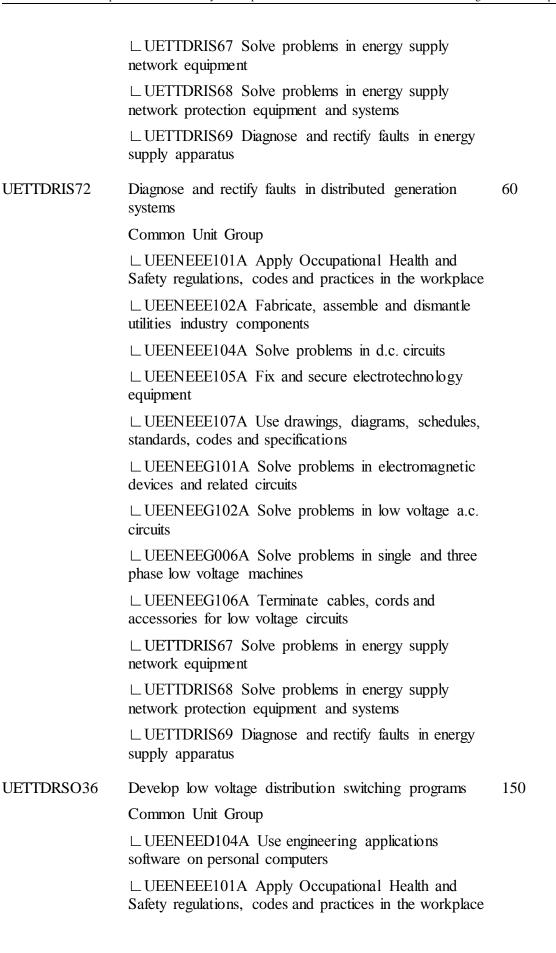


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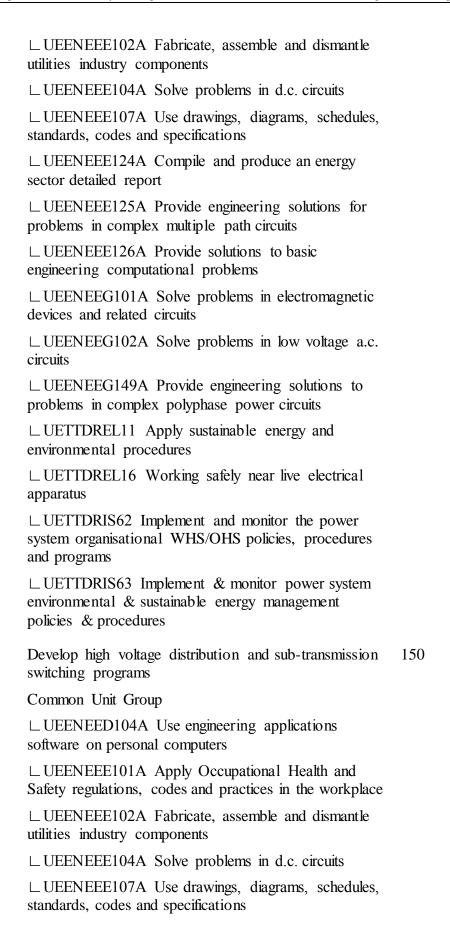
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UETTDRIS71

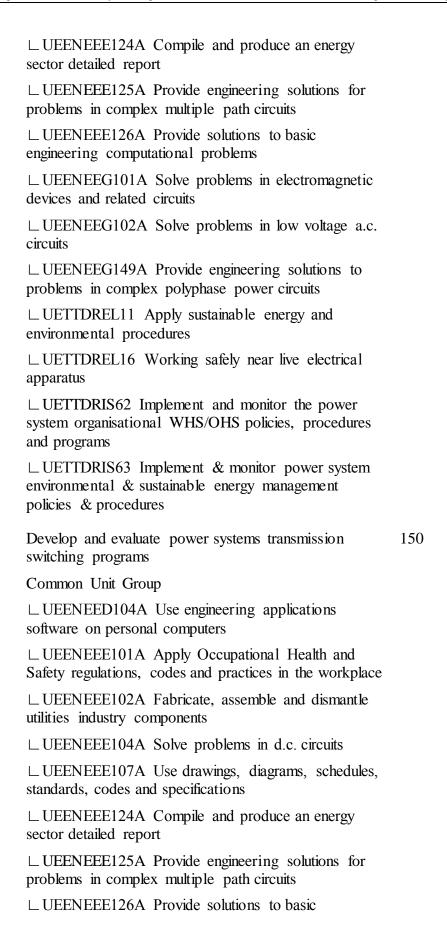


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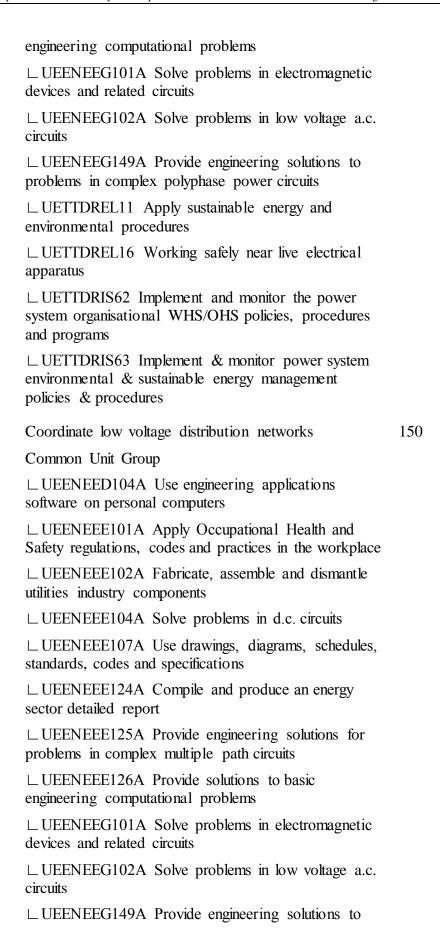
Australian Industry Standards



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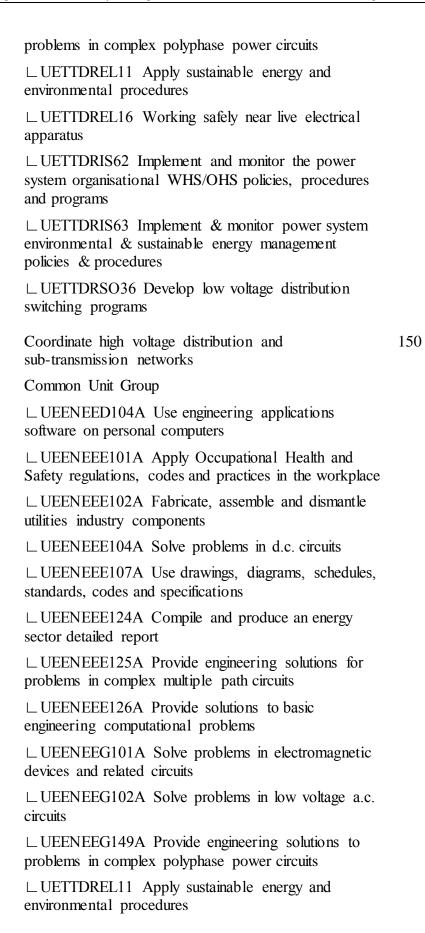


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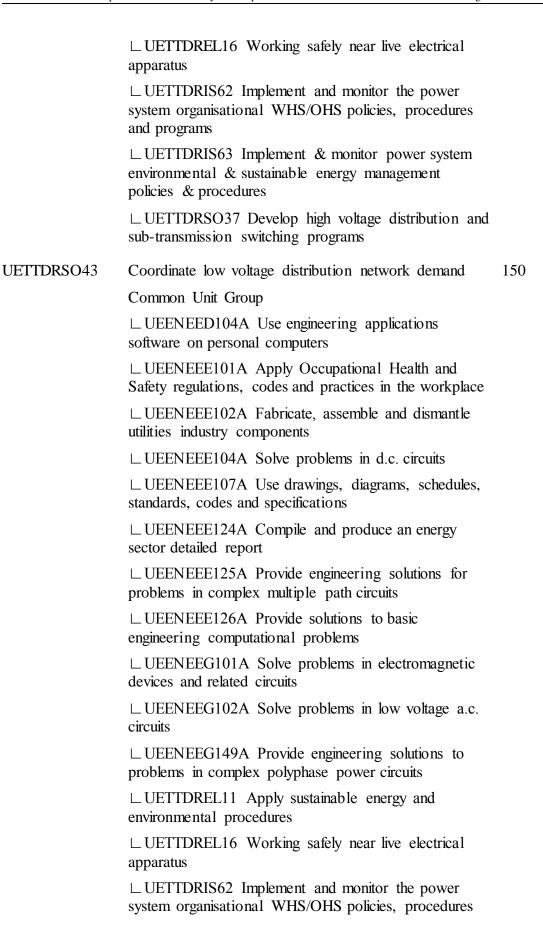


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UETTDRSO40



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Australian Industry Standards

and programs

LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

∟UETTDRSO36 Develop low voltage distribution switching programs

∟UETTDRSO39 Coordinate low voltage distribution networks

UETTDRSO46

Monitor and control the field staff activities

150

To minimise incidents related to safe systems of work, entry into this unit requires at a minimum that an individual has demonstrated or possesses relevant technical engineering discipline competencies of at least AQF level 3. It is intended that an individual will be expected to perform with a large degree of autonomy in decision-making, whilst in an individual environment.

This may include immediate response to protect human life, adverse effect on safety, security of supply or the integrity of the assets.

NOTE: Typically the following disciplines provide direct entry; electrical or instrumentation, fitting and turning or mechanical trade.

Where an individual does not possess or demonstrate the requisite entry requirement, an equivalent bridging program shall be used to ensure equivalence of entry.

UETTDRSO47

Coordinate high voltage transmission network

150

Common Unit Group

∟ UEENEED104A Use engineering applications software on personal computers

☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

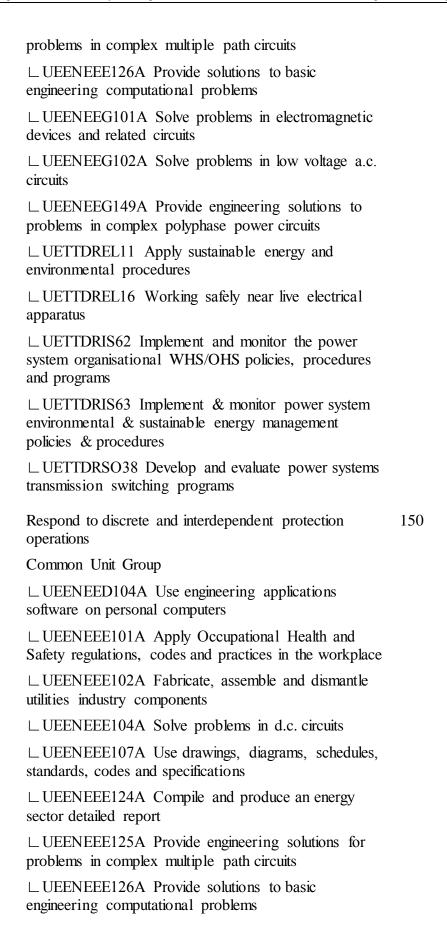
∟ UEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

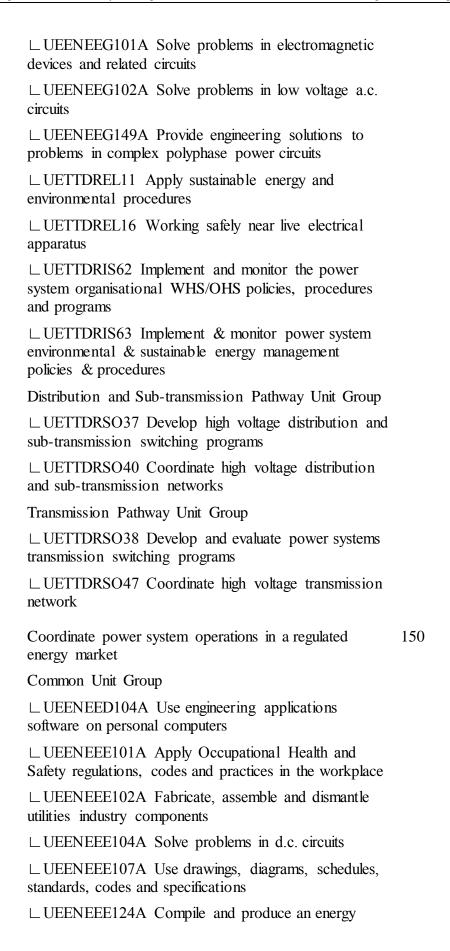
∟UEENEEE124A Compile and produce an energy sector detailed report

∟ UEENEEE125A Provide engineering solutions for

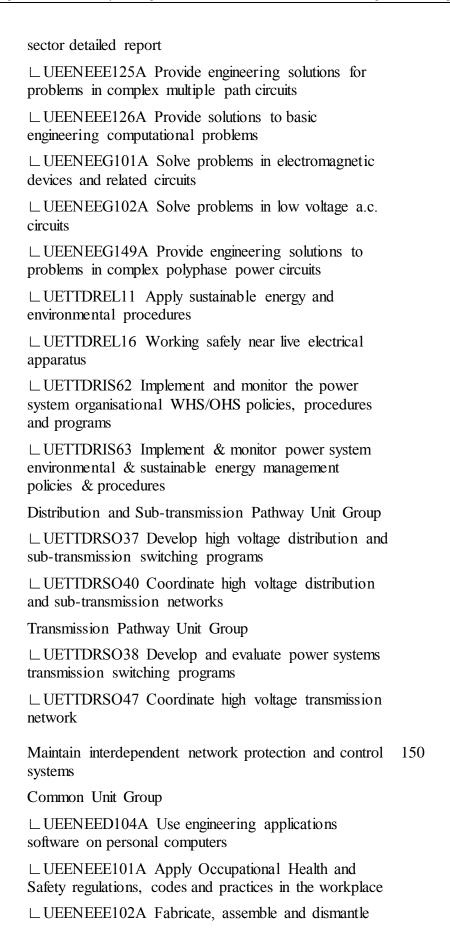
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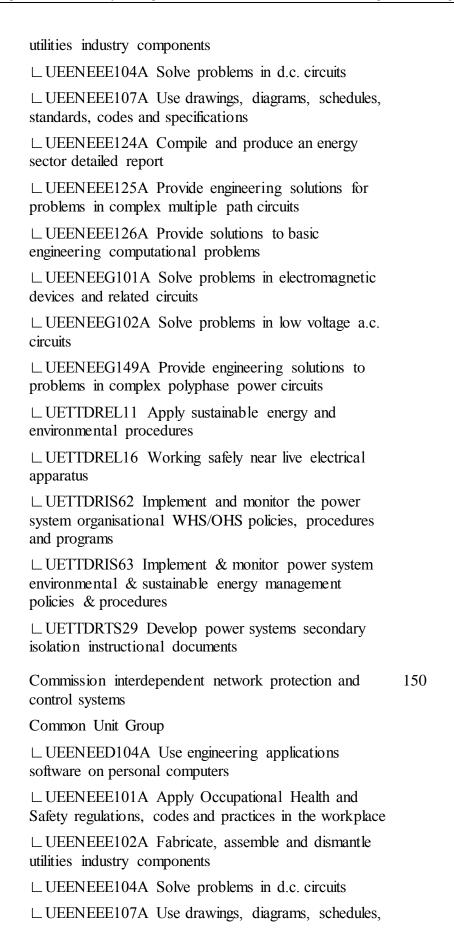
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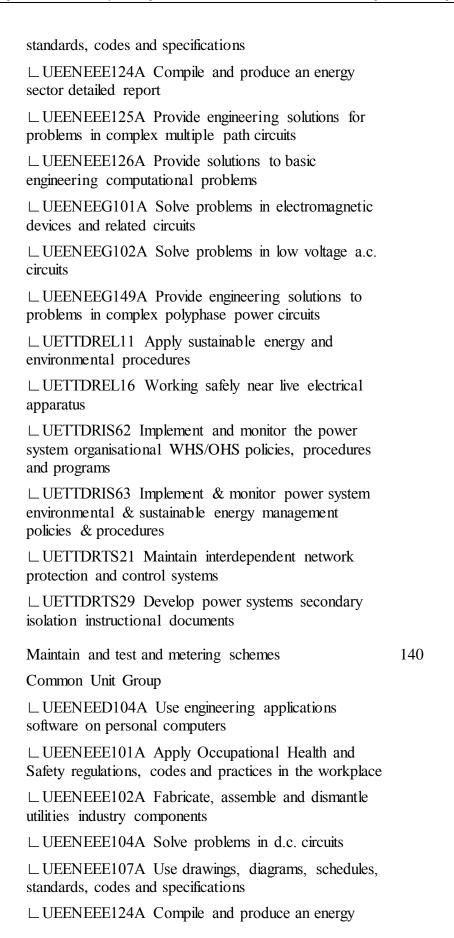
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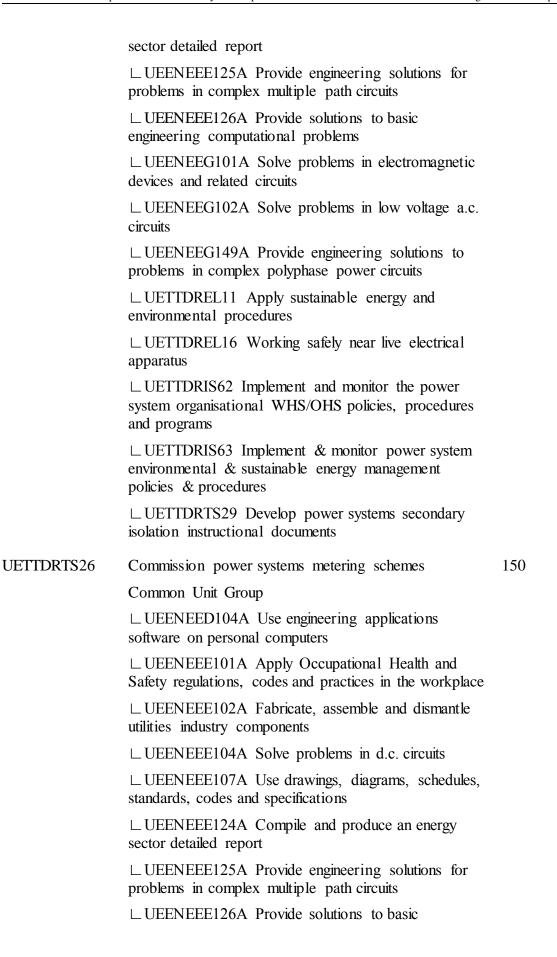
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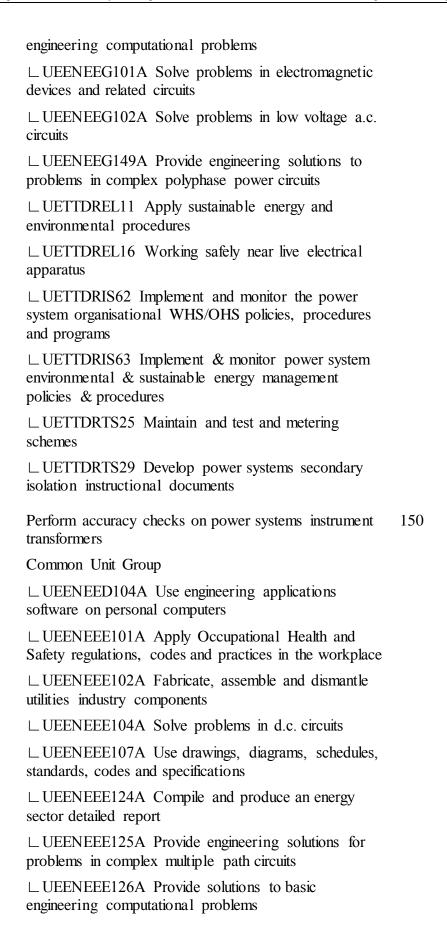
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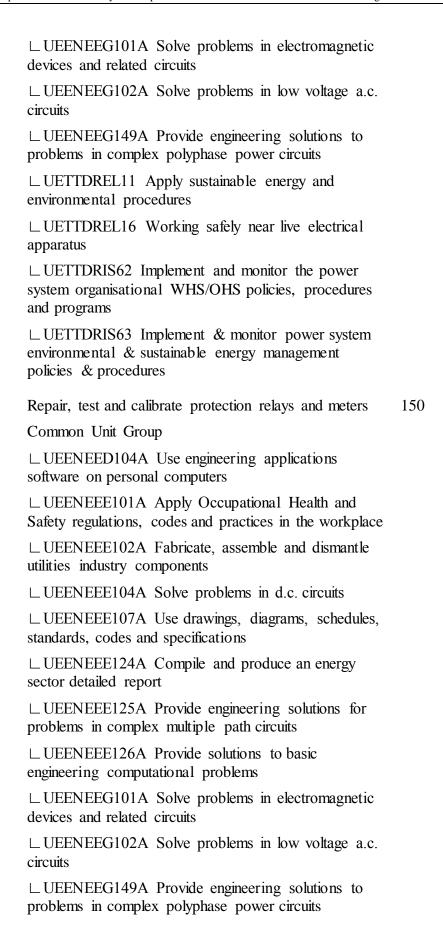
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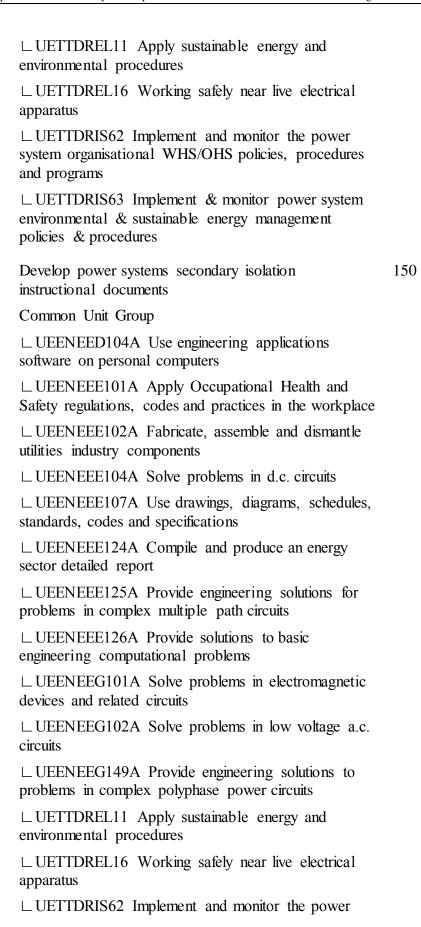


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UETTDRTS29



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UETTDRTS31

system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Maintain, test and commission power systems voltage 150 regulating equipment Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

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UETTDRTS34 Install and maintain power system communication 150 equipment Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **Group E: Qualification elective units Weighting Points UETTDRDS40** Prepare and appraise power systems financial impact 160 statements

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Common Unit Group

LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Testing Pathway Unit Group ∟ UEENEED104A Use engineering applications software on personal computers ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDRTS21 Maintain interdependent network protection and control systems ∟ UETTDRTS22 Commission interdependent network protection and control systems ∟ UETTDRTS29 Develop power systems secondary isolation instructional documents ∟ UETTDRTS35 Maintain complex network protection

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and control systems

Design Pathway Unit Group

∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure

UETTDRDS41

Manage electrical power systems infrastructure projects 160

Common Unit Group

∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

LUEENEEE104A Solve problems in d.c. circuits

□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

∟UEENEEG102A Solve problems in low voltage a.c. circuits

∟UETTDREL11 Apply sustainable energy and environmental procedures

∟UETTDREL16 Working safely near live electrical apparatus

∟UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures

Testing Pathway Unit Group

∟ UEENEED104A Use engineering applications software on personal computers

∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components

∟UEENEEE124A Compile and produce an energy sector detailed report

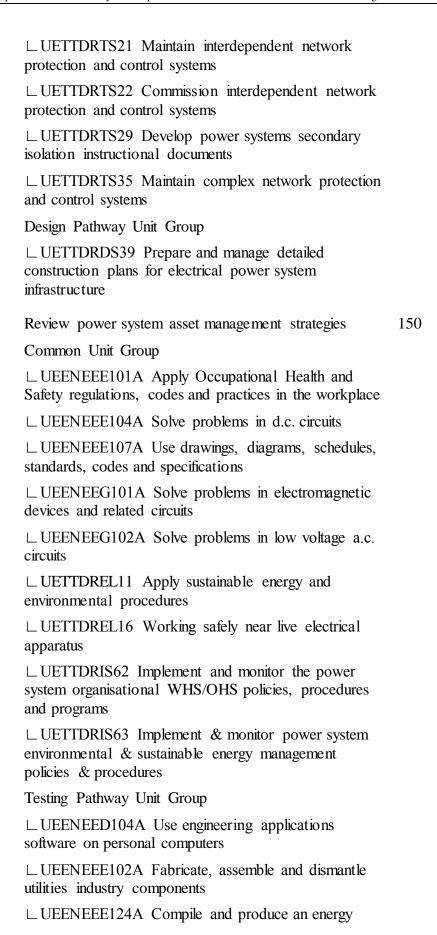
☐ UEENEE125A Provide engineering solutions for problems in complex multiple path circuits

☐ UEENEEE126A Provide solutions to basic engineering computational problems

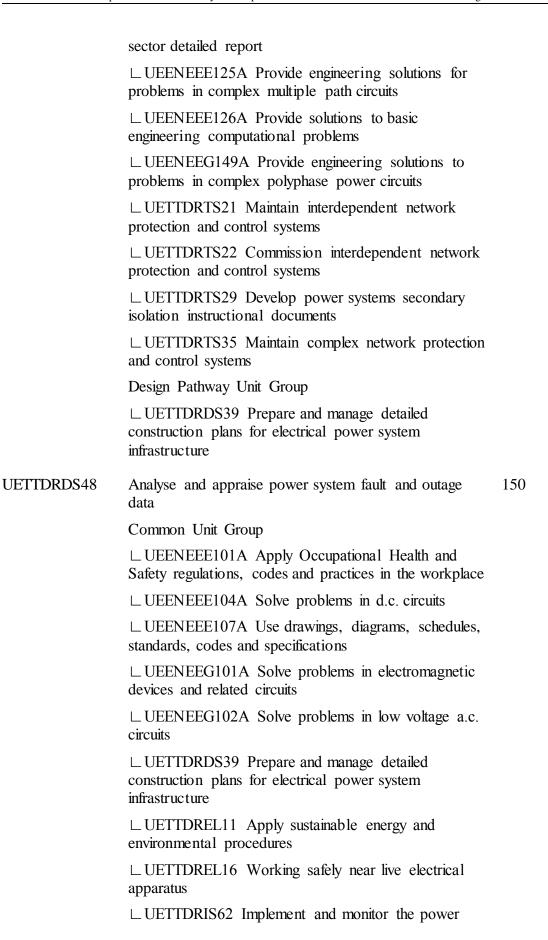
∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

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UETTDRDS47



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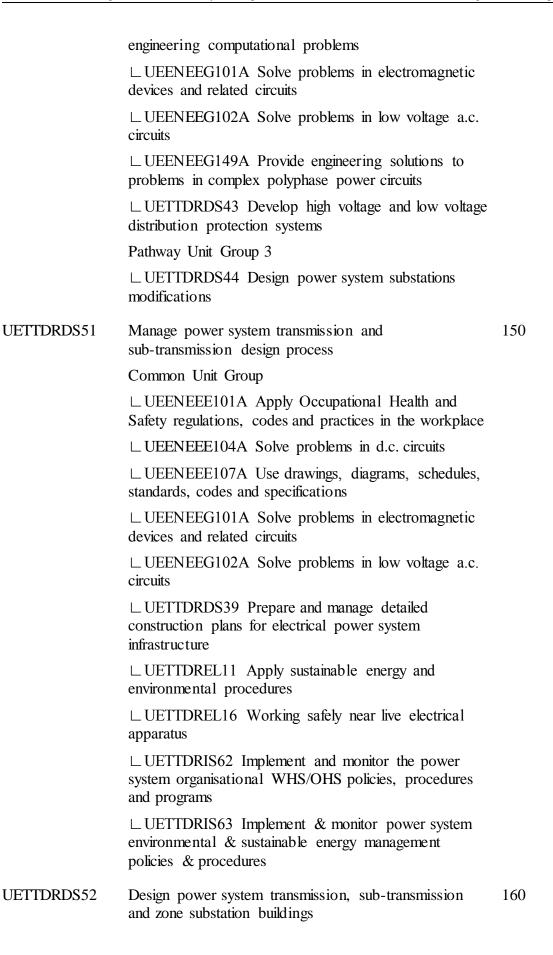
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UETTDRDS50

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system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Design customer power system substations Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Pathway Unit Group 1 LUEENEEE104A Solve problems in d.c. circuits LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys Pathway Unit Group 2 LUEENEEE104A Solve problems in d.c. circuits LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic

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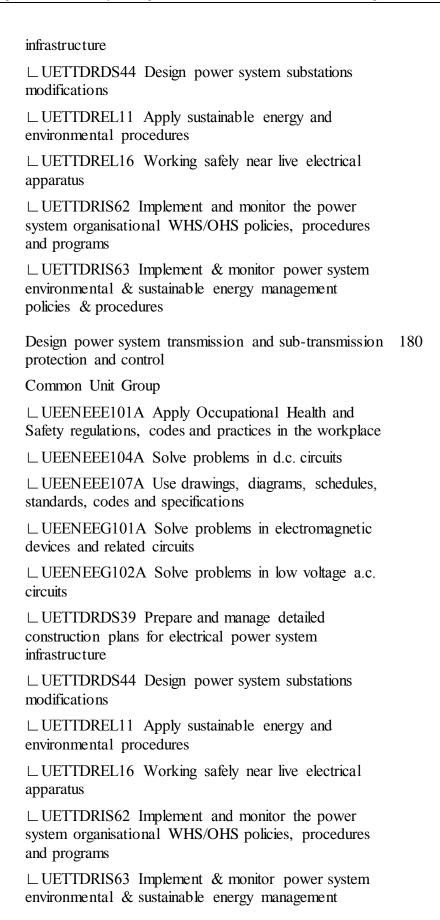
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Common Unit Group ∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure ∟ UETTDRDS44 Design power system substations modifications ∟UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures Design power system transmission and sub-transmission 180 substation primary plant Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system

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UETTDRDS53

UETTDRDS54



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policies & procedures

UETTDRDS55 Design power system transmission and sub-transmission 160 substation earthing Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure ∟ UETTDRDS44 Design power system substations modifications LUETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRDS56** Design power system transmission, sub-transmission & 160 zone substation civil & structural components Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

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LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure ∟ UETTDRDS44 Design power system substations modifications ∟ UETTDREL11 Apply sustainable energy and environmental procedures ∟ UETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures 160 Design power system overhead transmission systems Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures

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UETTDRDS57

and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRDS58** Design underground transmission systems 160 Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UETTDRDS39 Prepare and manage detailed construction plans for electrical power system infrastructure LUETTDRDS45 Organise and implement ESI line and easement surveys LUETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRIS73** Develop engineering solutions for energy supply power 60 transformer problems Common Unit Group LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits □ UEENEEE105A Fix and secure electrotechnology

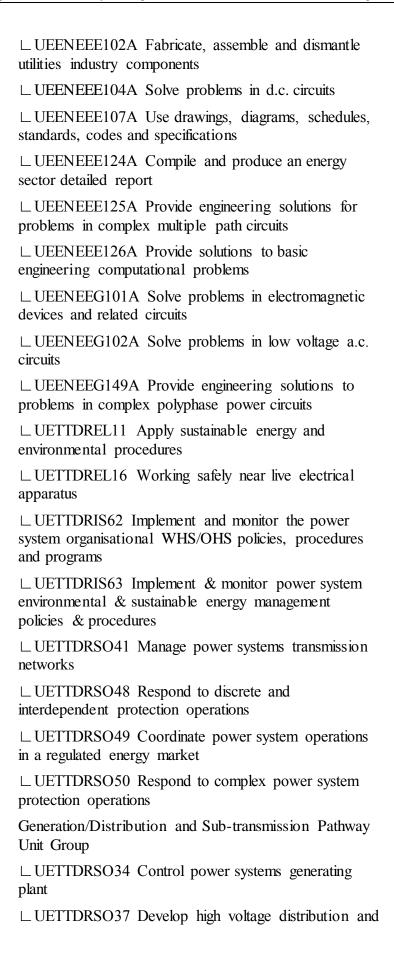
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equipment ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits ∟ UEENEEG006A Solve problems in single and three phase low voltage machines LUEENEEG106A Terminate cables, cords and accessories for low voltage circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDRIS67 Solve problems in energy supply network equipment LUETTDRIS68 Solve problems in energy supply network protection equipment and systems LUETTDRIS69 Diagnose and rectify faults in energy supply apparatus Distribution Pathway Unit Group LUETTDRIS70 Diagnose and rectify faults in electrical energy distribution systems Transmission Pathway Unit Group ∟ UETTDRIS71 Diagnose and rectify faults in electrical energy supply transmission systems Distributed Generation Pathway Unit Group LUETTDRIS72 Diagnose and rectify faults in distributed generation systems 180 Manage power systems network faults Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers

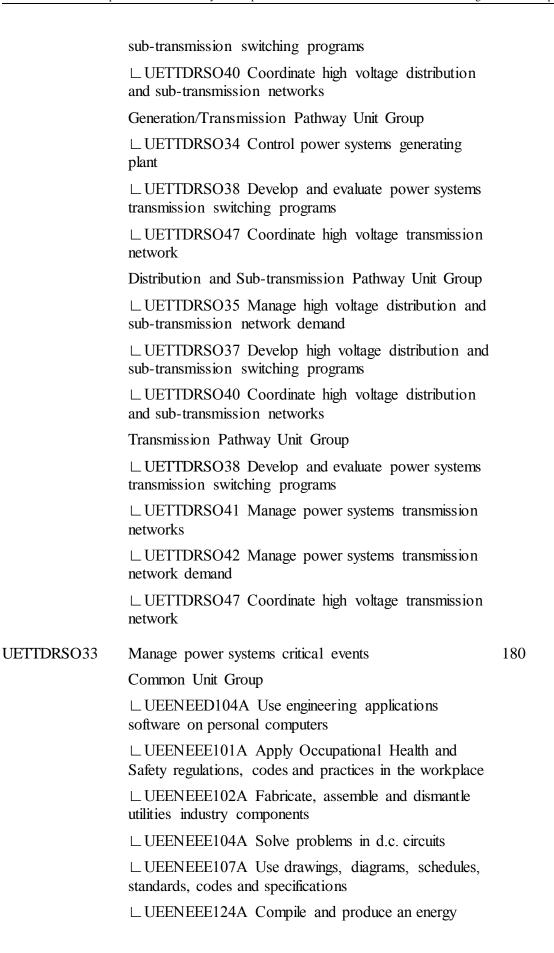
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∟ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

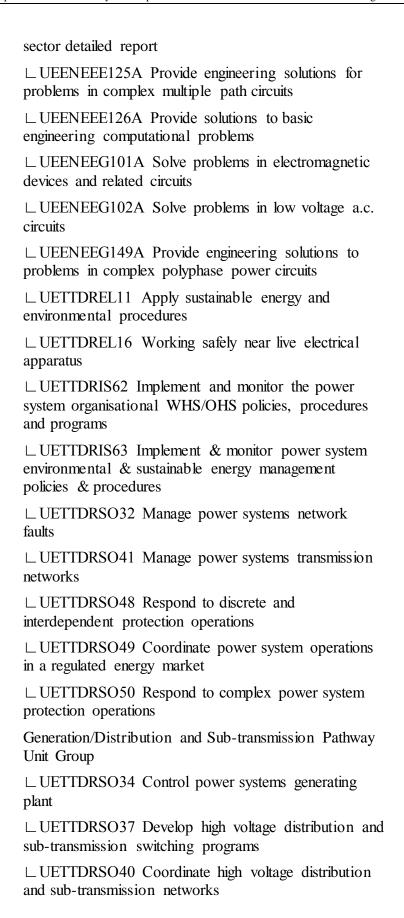
UETTDRSO32



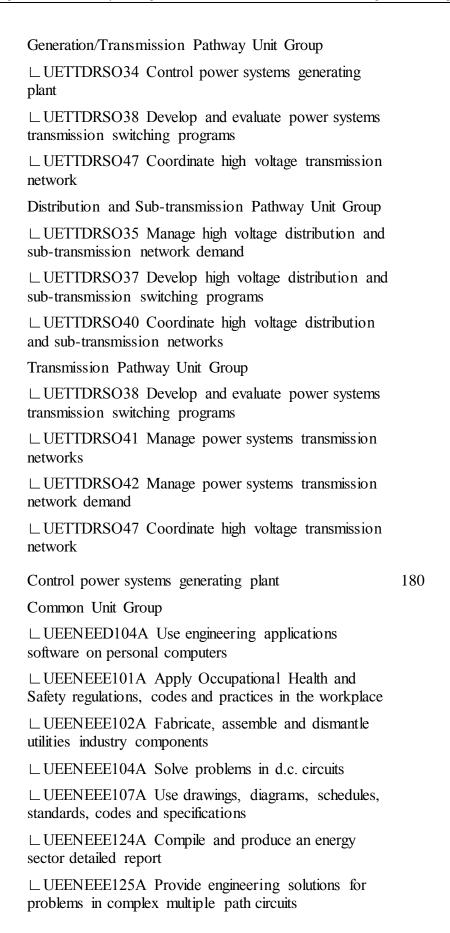
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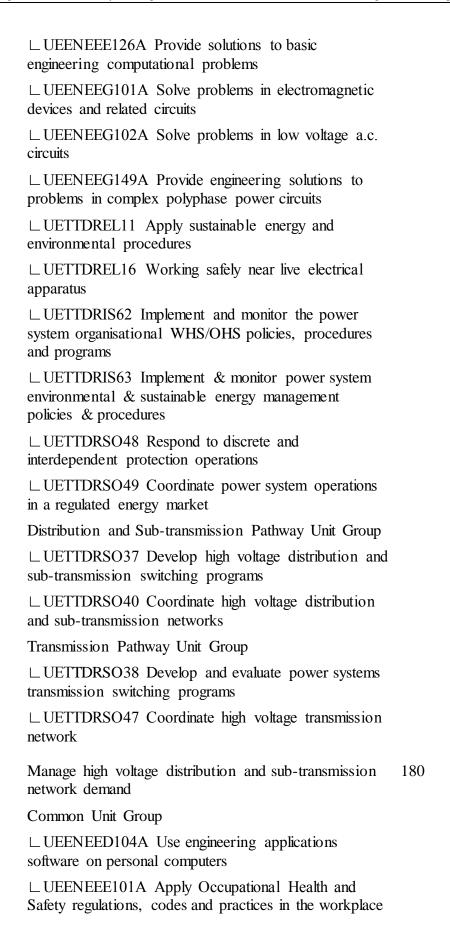


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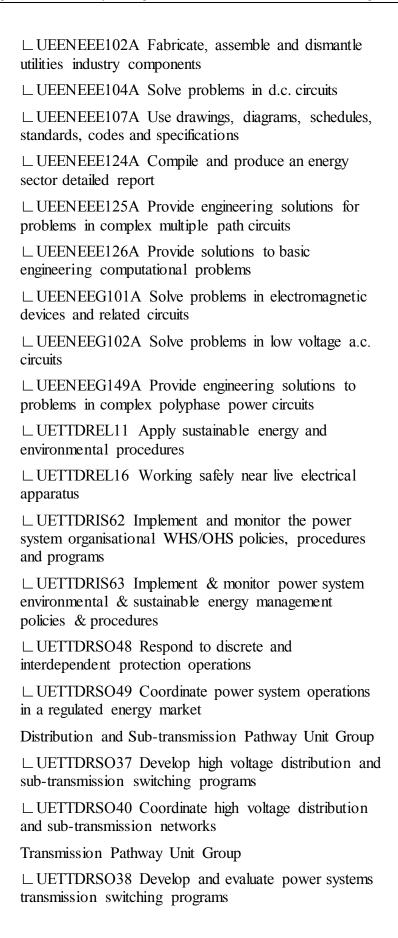
UETTDRSO34



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Australian Industry Standards

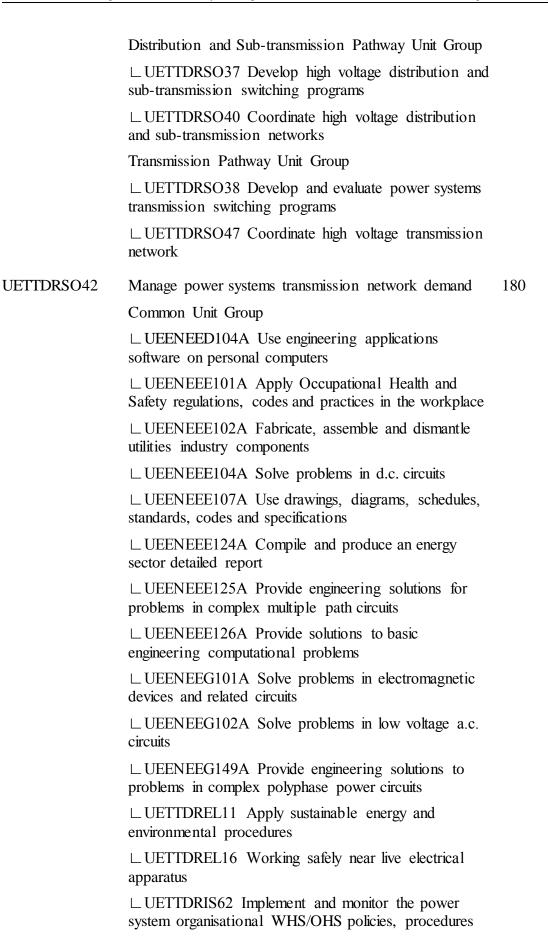
UETTDRSO35



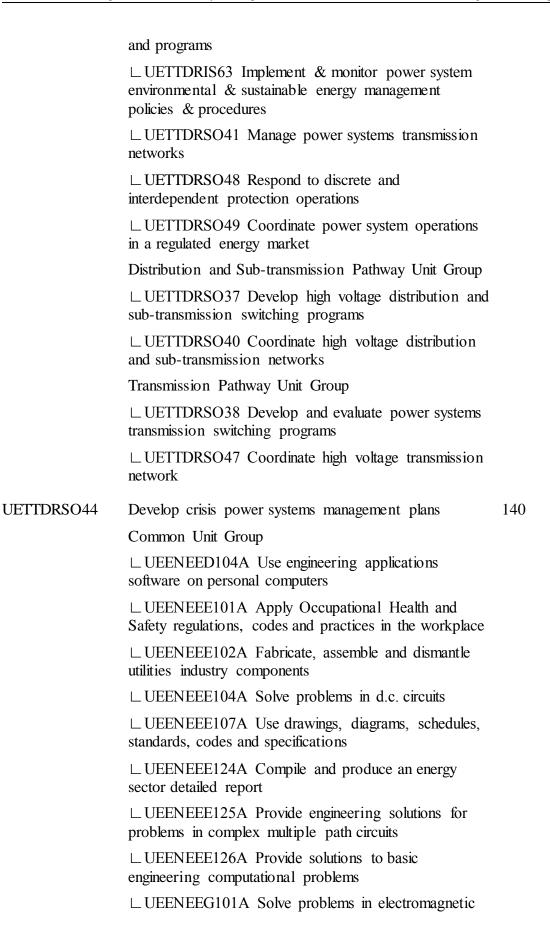
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∟ UETTDRSO47 Coordinate high voltage transmission network **UETTDRSO41** Manage power systems transmission networks 180 Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems LUEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETTDRSO48 Respond to discrete and interdependent protection operations ∟ UETTDRSO49 Coordinate power system operations in a regulated energy market

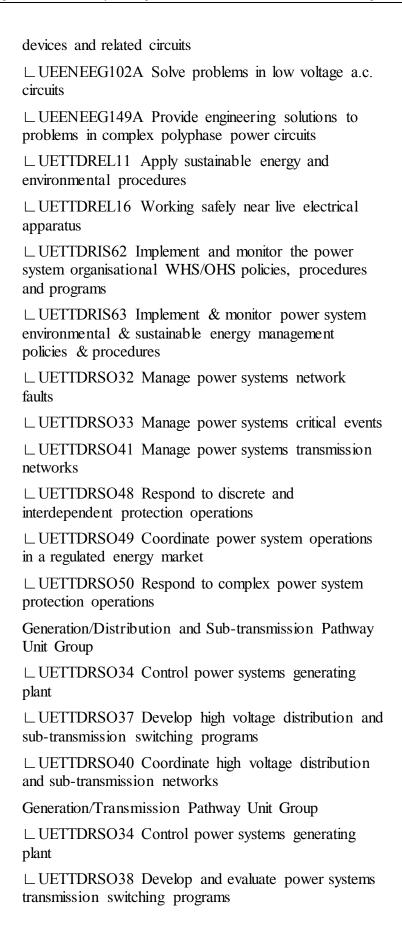
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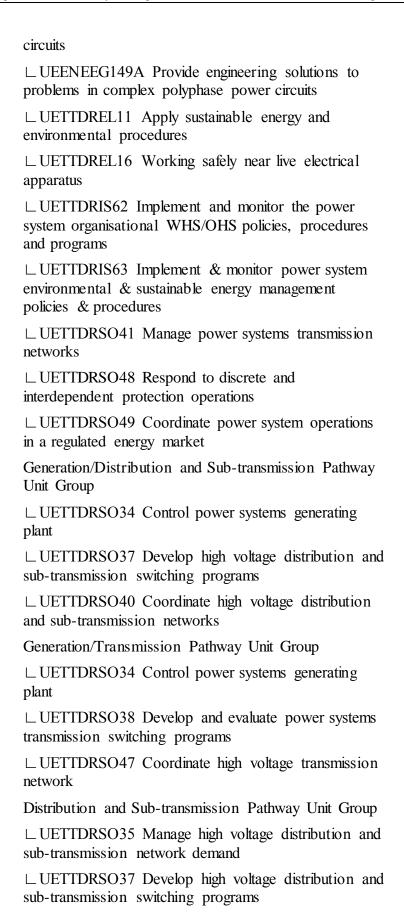


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∟ UETTDRSO47 Coordinate high voltage transmission network Distribution and Sub-transmission Pathway Unit Group LUETTDRSO35 Manage high voltage distribution and sub-transmission network demand LUETTDRSO37 Develop high voltage distribution and sub-transmission switching programs ∟ UETTDRSO40 Coordinate high voltage distribution and sub-transmission networks Transmission Pathway Unit Group ∟ UETTDRSO38 Develop and evaluate power systems transmission switching programs ∟ UETTDRSO41 Manage power systems transmission networks ∟ UETTDRSO42 Manage power systems transmission network demand ∟ UETTDRSO47 Coordinate high voltage transmission network Respond to complex power system protection operations 180 Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEE124A Compile and produce an energy sector detailed report LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c.

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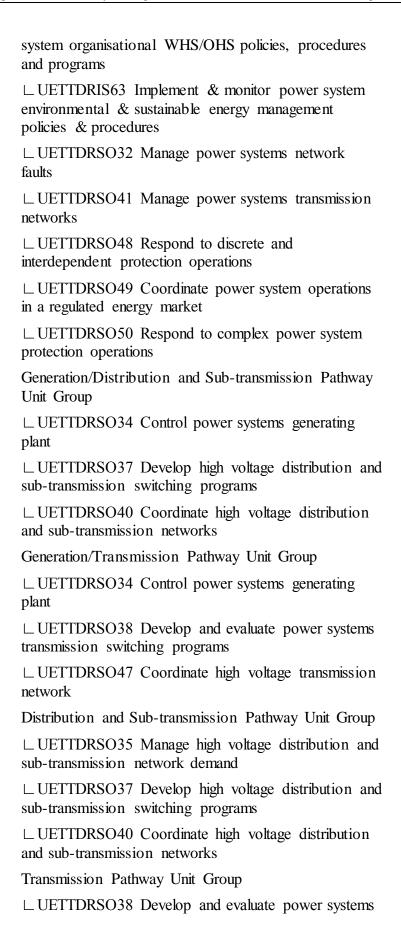
UETTDRSO50



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∟ UETTDRSO40 Coordinate high voltage distribution and sub-transmission networks Transmission Pathway Unit Group ∟ UETTDRSO38 Develop and evaluate power systems transmission switching programs ∟ UETTDRSO41 Manage power systems transmission networks ∟ UETTDRSO42 Manage power systems transmission network demand ∟ UETTDRSO47 Coordinate high voltage transmission network **UETTDRSO51** Manage network systems power flows 180 Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEEE104A Solve problems in d.c. circuits LUEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEE124A Compile and produce an energy sector detailed report ∟ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits LUEENEEG102A Solve problems in low voltage a.c. circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits ∟ UETTDREL11 Apply sustainable energy and environmental procedures LUETTDREL16 Working safely near live electrical apparatus ∟ UETTDRIS62 Implement and monitor the power

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transmission switching programs		
∟ UETTDRSO41 networks	Manage power systems	transmission
∟ UETTDRSO42 network demand	Manage power systems	transmission
∟ UETTDRSO47	Coordinate high voltage	transmission

Qualification Mapping Information

This qualification replaces and is equivalent to UET60312 Advanced Diploma of ${\sf ESI}$ - Power Systems Operations

Links

Companion Volume Implementation Guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb1 3ecfad7

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