

UET60219 Advanced Diploma of ESI - Power Systems

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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 System Senior Technical Officer or a Power 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 **2160 weighting points** comprising:

820 core weighting points listed below; plus

1340 general elective weighting points from the general elective units listed below.

Choose a total of 1340 **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 400 **weighting points** can be taken from Group B; between 0 and 200 **weighting points** can be taken from Group C, between 140 and 900 **weighting points** can be taken from Group D and between 440 and 1200 **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 weighting points will be 10 points.

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

Weighting Points Core units UEENEED104A Use engineering applications software on personal 40 computers LUEENEEE101A Apply Occupational Health Safety regulations, codes and practices in the workplace UEENEEE083A Establish and follow a competency development plan in 120 an electrotechnology engineering discipline Apply Occupational Health and Safety regulations, 20 UEENEEE101A codes and practices in the workplace UEENEEE102A Fabricate, assemble and dismantle utilities industry 40 components LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace **UEENEEE104A** Solve problems in d.c. circuits 80 LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace **UEENEEE107A** Use drawings, diagrams, schedules, standards, codes and 40 specifications LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace Compile and produce an energy sector detailed report UEENEEE124A 60 UEENEEE125A Provide engineering solutions for problems in complex 60 multiple path circuits ∟ UEENEEE126A Provide solutions to basic engineering computational problems UEENEEE126A Provide solutions to basic engineering computational 60 problems ∟ UEENEEE029B Solve electrotechnical problems LUEENEEG102A Solve problems in low voltage a.c. circuits

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or

Of			
∟ UEENEEH014B	Troubleshoot	frequency	dependent
circuits			

UEENEEG101A Solve problems in electromagnetic devices and related 60

circuits

LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

LUEENEEE104A Solve problems in d.c. circuits

UEENEEG102A Solve problems in low voltage a.c. circuits 80

LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

LUEENEEE104A Solve problems in d.c. circuits

∟ UEENEEG101A Solve problems in electromagnetic

devices and related circuits

UEENEEG149A Provide engineering solutions to problems in complex 60

polyphase power circuits

LUEENEE125A Provide engineering solutions for problems in complex multiple path circuits

and

LUEENEEG102A Solve problems in low voltage a.c. circuits

UETTDREL11 Apply sustainable energy and environmental procedures 20

UETTDREL16 Working safely near live electrical apparatus 20

UETTDRIS62 Implement and monitor the power system organisational 30

WHS/OHS policies, procedures and programs

Common Unit Group

LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace

LUETTDREL16 Working safely near live electrical

apparatus

UETTDRIS63 Implement & monitor power system environmental &

sustainable energy management policies & procedures

Electrotechnology Pathway Unit Group

∟ UEENEEK142A Apply environmentally and sustainable procedures in the energy sector

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30

ESI - TDR Pathway Unit Group

∟ UETTDREL11 Apply sustainable energy and environmental procedures

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
Group B: Qualification elective units		Weighting Points
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	
	☐ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	

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	☐ 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
	☐ UEENEEE101A 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. circuits	
UETTDREL15	Respond to power systems technical enquiries and requests	40
UETTDRIS67	Solve problems in energy supply network equipment	80
	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	

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equipment ∟ 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 ∟ UEENEEG006A Solve problems in single and three phase low voltage machines LUEENEEG106A Terminate cables, cords and accessories for low voltage circuits **UETTDRIS68** Solve problems in energy supply network protection 40 equipment and systems 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 equipment LUEENEEE107A 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 ∟ UEENEEG006A Solve problems in single and three phase low voltage machines LUEENEEG106A Terminate cables, cords and accessories for low voltage circuits ∟ UETTDRIS67 Solve problems in energy supply network equipment **Group C: Qualification elective units Weighting Points**

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LUEENEEE101A Apply Occupational Health Safety

Install and configure network systems for

internetworking

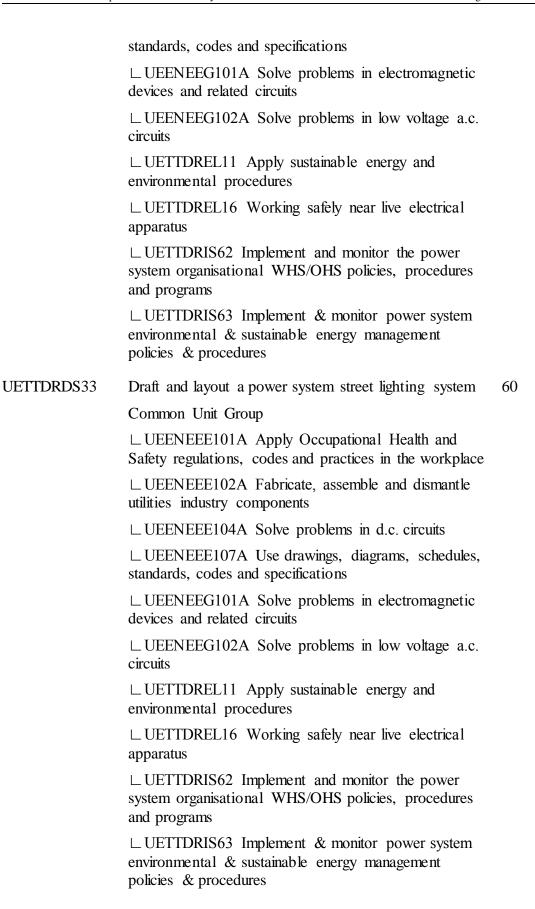
UEENEED117A

120

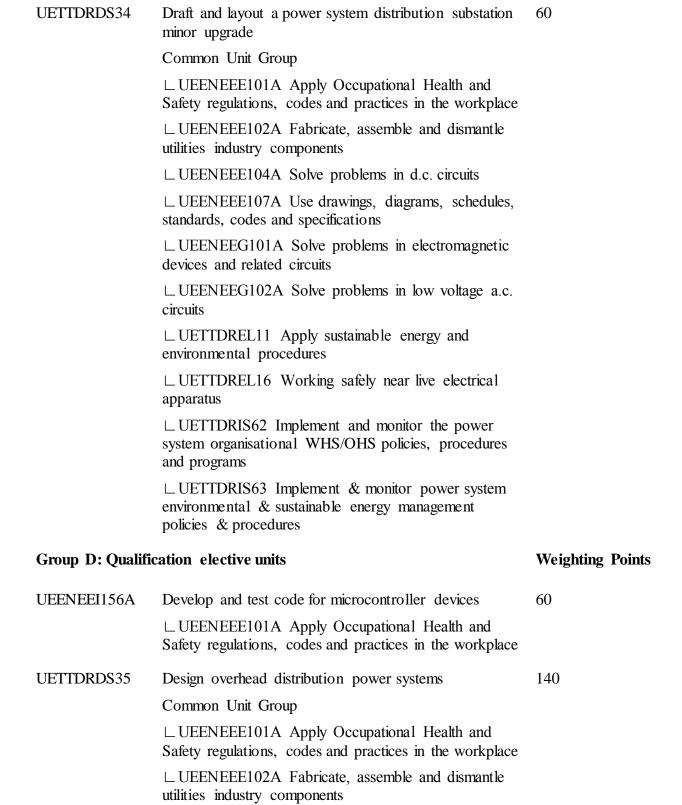
regulations, codes and practices in the workplace

UEENEEI155A Develop structured programs to control external devices 40 LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace UETTDRDS31 Draft and layout a power system overhead distribution 60 extension Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components 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 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 **UETTDRDS32** Draft and layout a power system underground 60 distribution extension Common Unit Group 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 ∟ UEENEEE107A Use drawings, diagrams, schedules,

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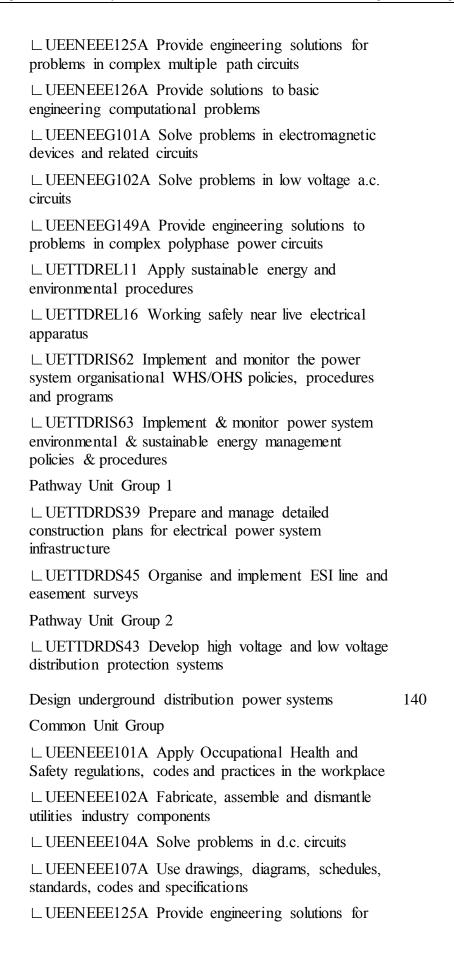


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∟ UEENEEE104A Solve problems in d.c. circuits

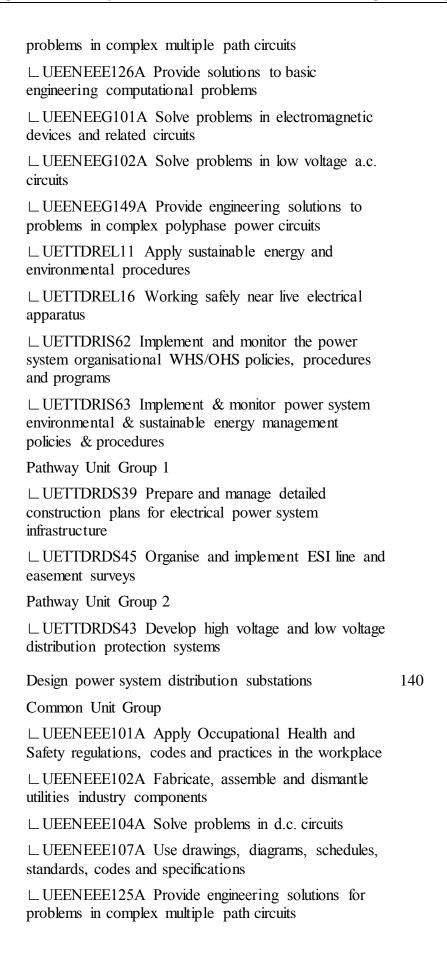
standards, codes and specifications

∟ UEENEEE107A Use drawings, diagrams, schedules,



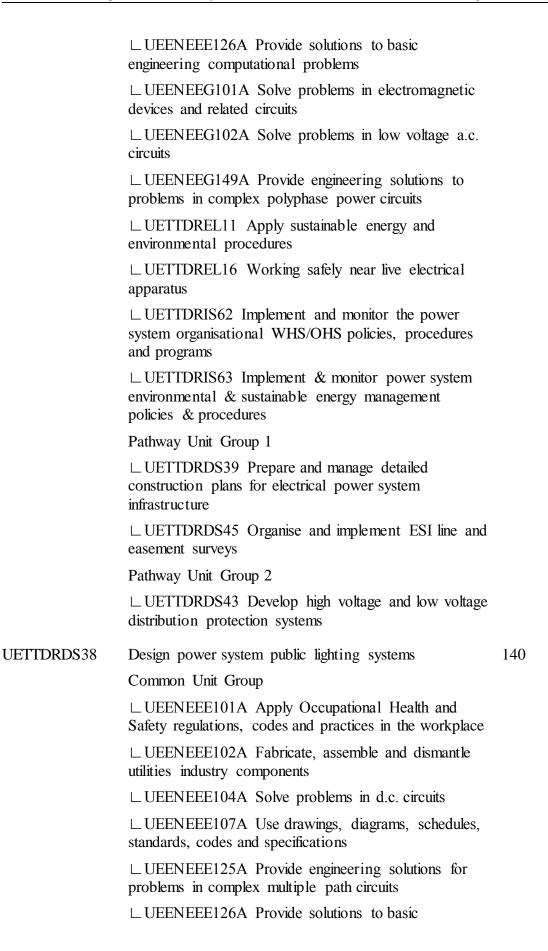
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UETTDRDS36

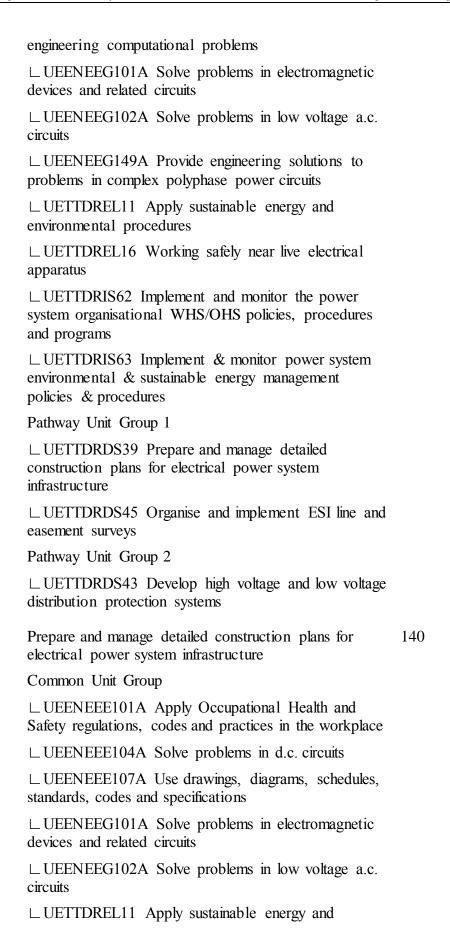


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UETTDRDS37

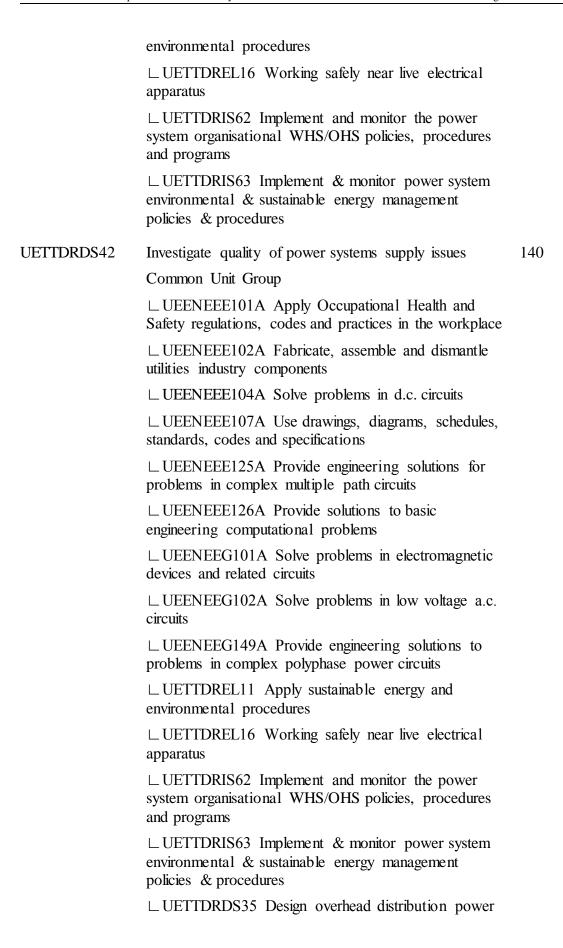


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UETTDRDS39



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UETTDRDS43

systems ∟ UETTDRDS36 Design underground distribution power systems 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 Develop high voltage and low voltage distribution 150 protection systems Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE102A Fabricate, assemble and dismantle utilities industry components LUEENEE104A 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 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

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

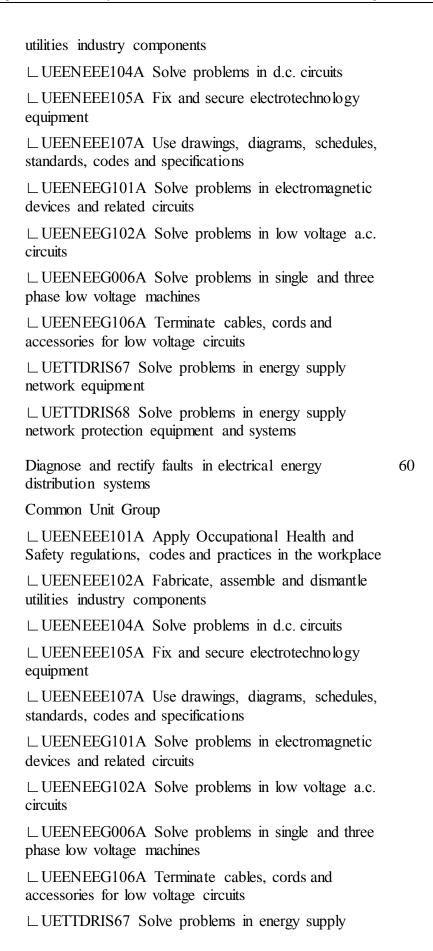
and programs

∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRDS44** Design power system substations modifications 150 Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components ∟ UEENEEE107A 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 **UETTDRDS45** Organise and implement ESI line and easement surveys 140 Common Unit Group LUEENEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE104A 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 ∟ UETTDREL11 Apply sustainable energy and environmental procedures ∟ UETTDREL16 Working safely near live electrical apparatus

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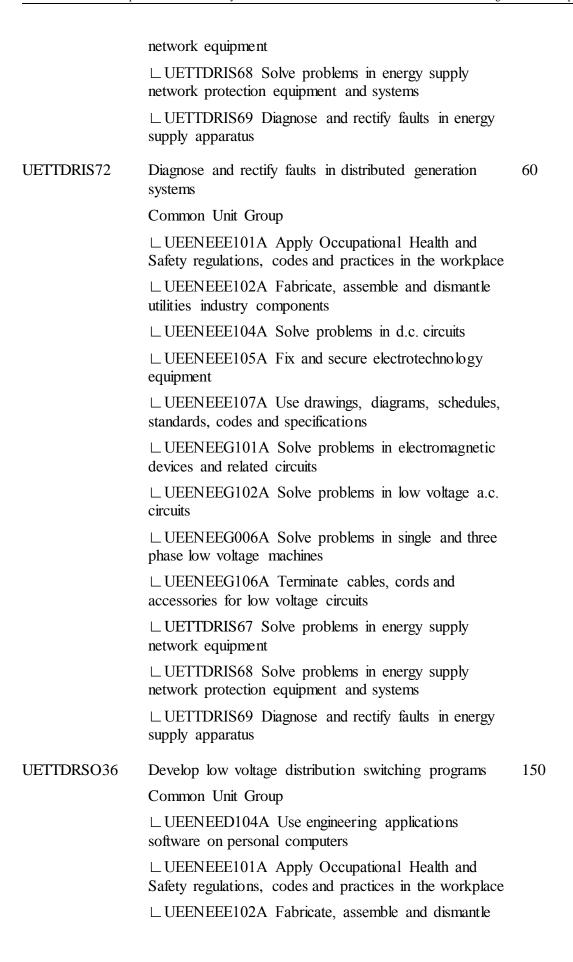
	☐ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	
	☐ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures	
UETTDRDS46	Develop planned power systems outage strategies	140
	Common Unit Group	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	☐ UEENEED104A Use engineering applications software on personal computers	
	∟ UETTDREL16 Working safely near live electrical apparatus	
	☐ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	
UETTDRDS49	Establish and manage power system geographical information systems data	140
	Common Unit Group	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	☐ UEENEED104A Use engineering applications software on personal computers	
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications	
	∟ UETTDREL16 Working safely near live electrical apparatus	
	☐ UETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs	
UETTDRIS66	Manage an electricity power system WHS/OHS management system	140
UETTDRIS69	Diagnose and rectify faults in energy supply apparatus	60
	Common Unit Group	
	☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace	
	∟UEENEEE102A Fabricate, assemble and dismantle	

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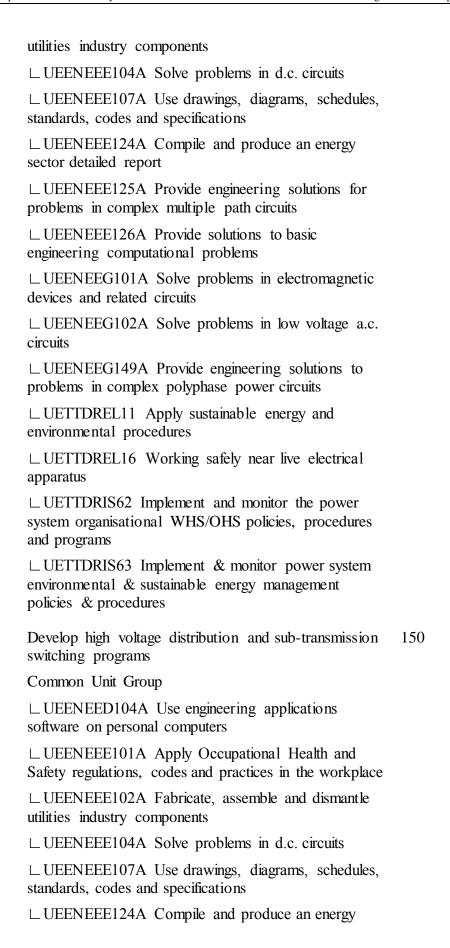


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UETTDRIS70

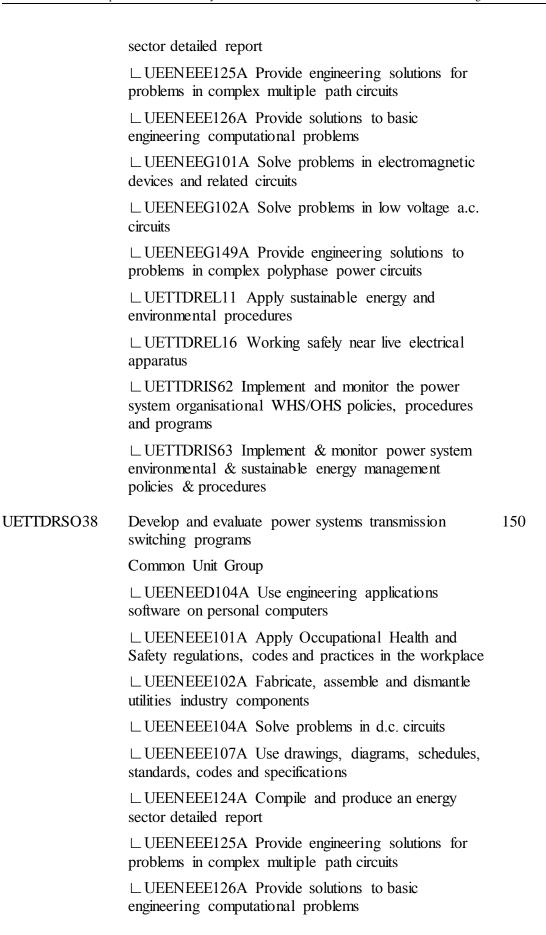


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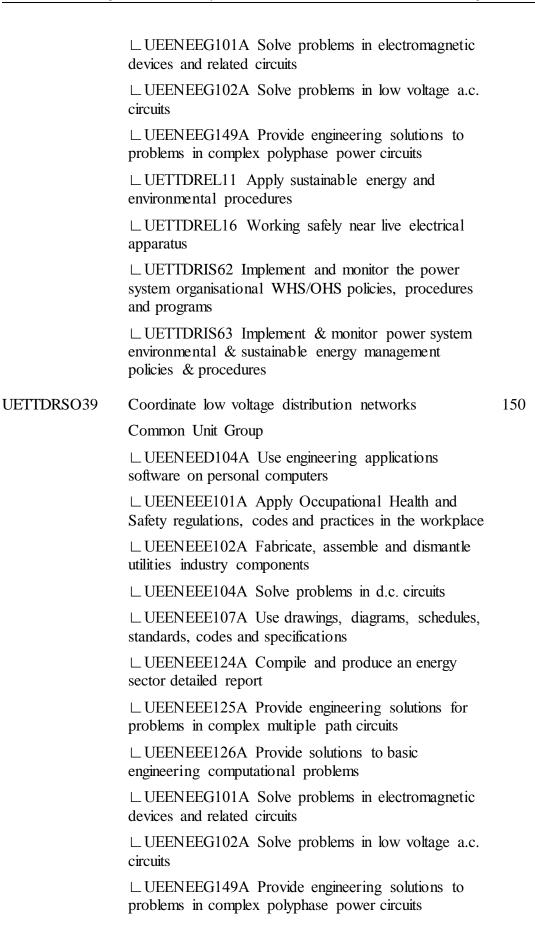


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UETTDRSO37



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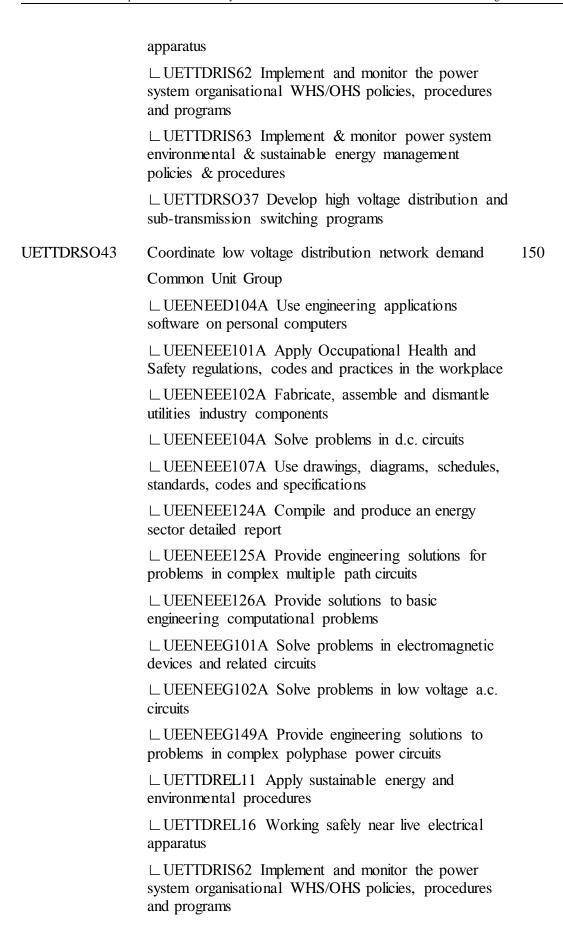


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UETTDRSO40

∟ 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 ∟ UETTDRSO36 Develop low voltage distribution switching programs Coordinate high voltage distribution and 150 sub-transmission networks 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 ∟ UEENEEE124A 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 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

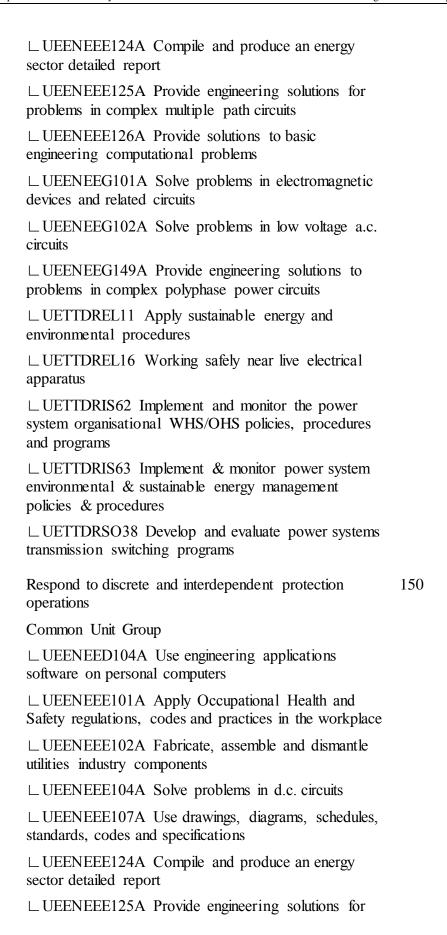
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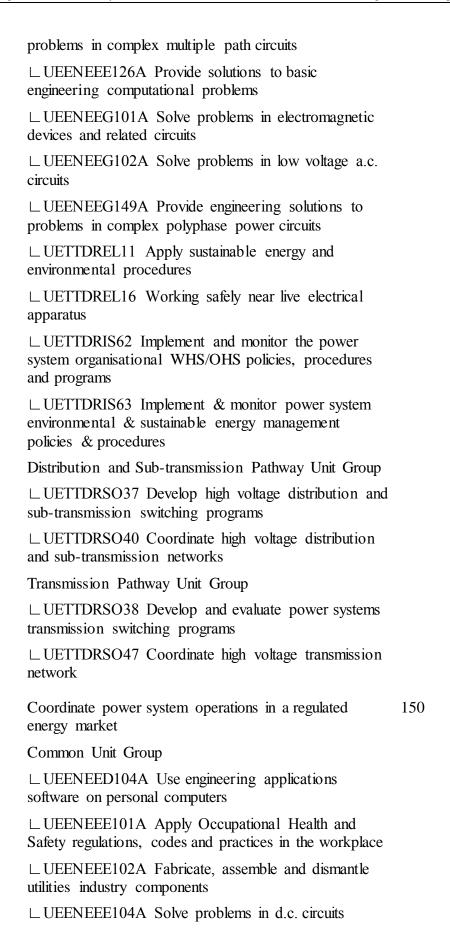
∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures ∟ UETTDRSO36 Develop low voltage distribution switching programs ∟ UETTDRSO39 Coordinate low voltage distribution networks 150 **UETTDRSO45** Operate and monitor system SCADA equipment Common Unit Group LUETTDREL15 Respond to power systems technical enquiries and requests **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 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 ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications

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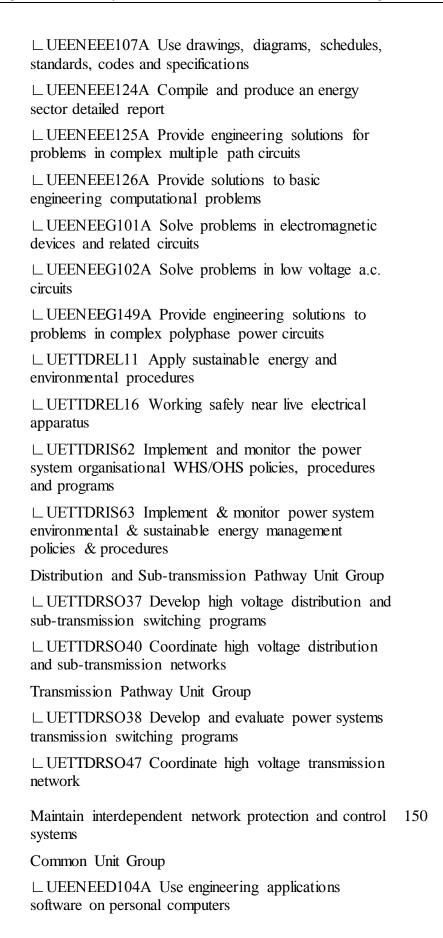
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UETTDRSO48

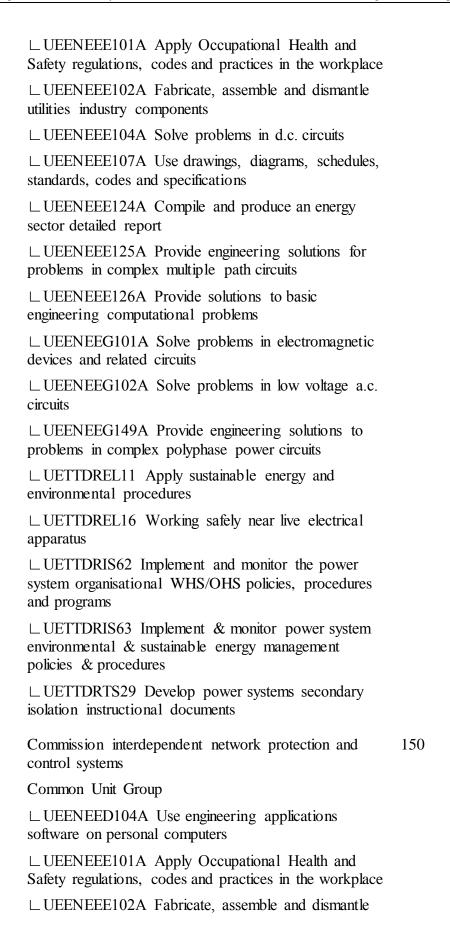


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UETTDRSO49

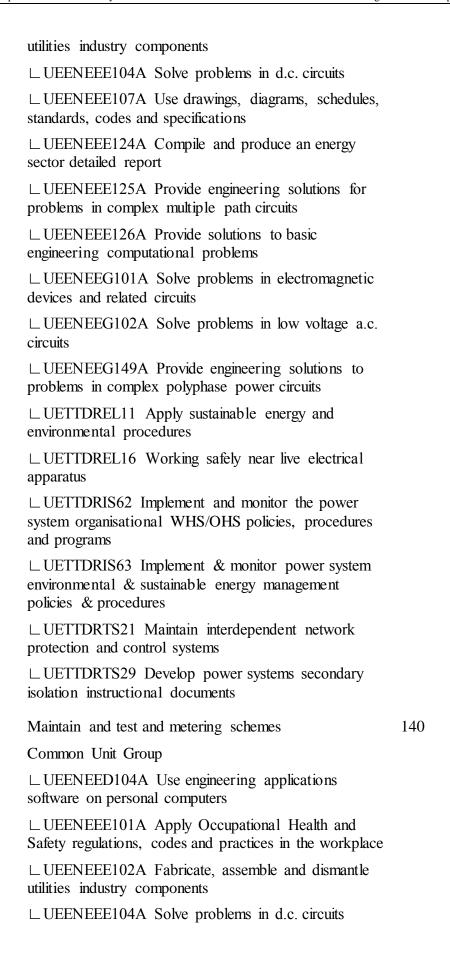


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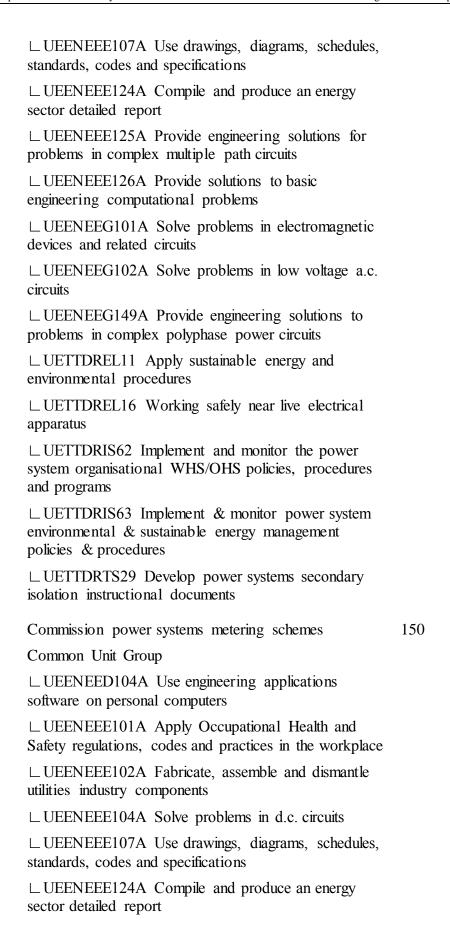


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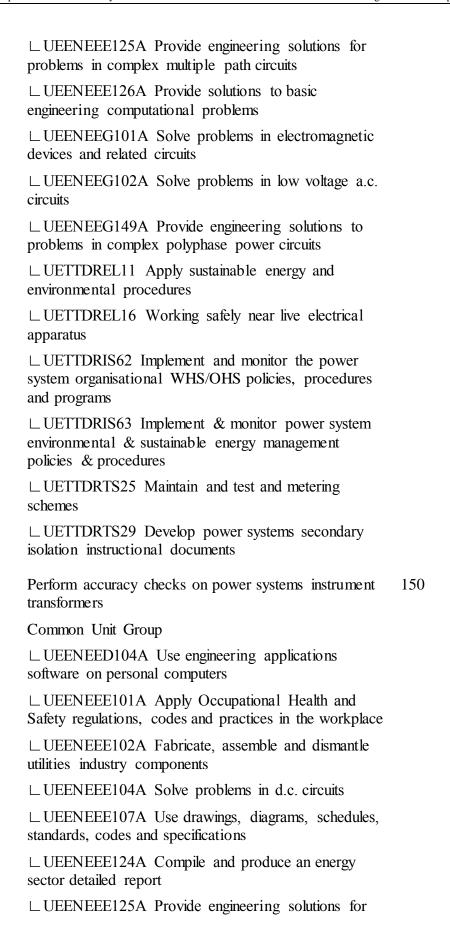
Australian Industry Standards



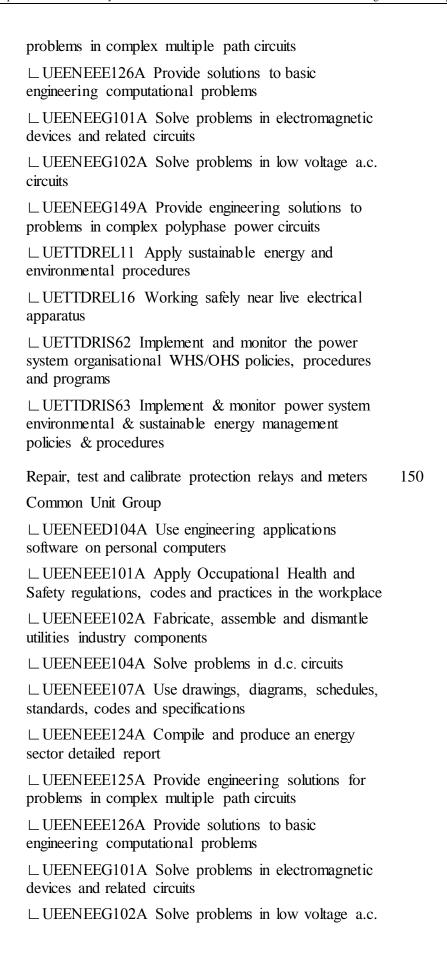
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circuits

LUEENEEG149A Provide engineering solutions to problems in complex polyphase power 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

UETTDRTS29

Develop power systems secondary isolation instructional documents

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

LUEENEEE104A 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 problems in complex multiple path circuits

∟ UEENEEE126A Provide solutions to basic engineering computational problems

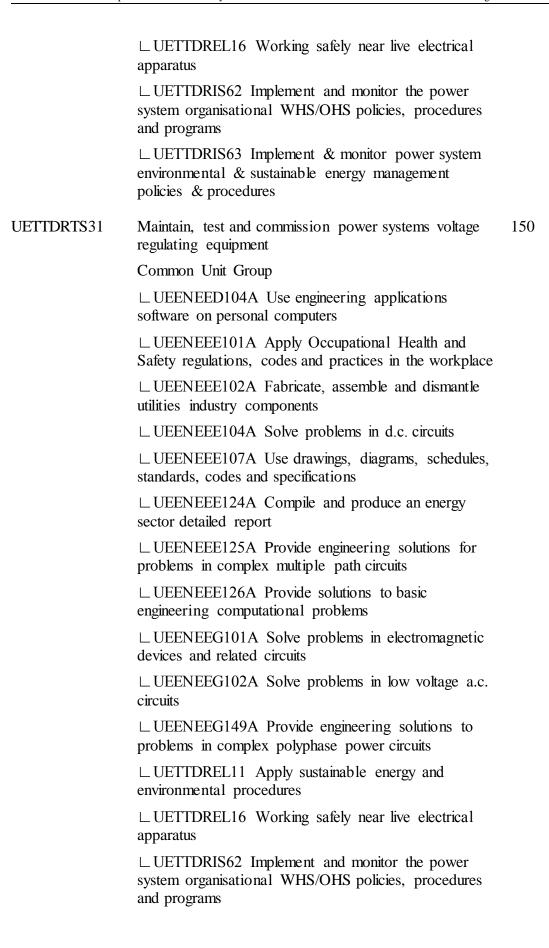
∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

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

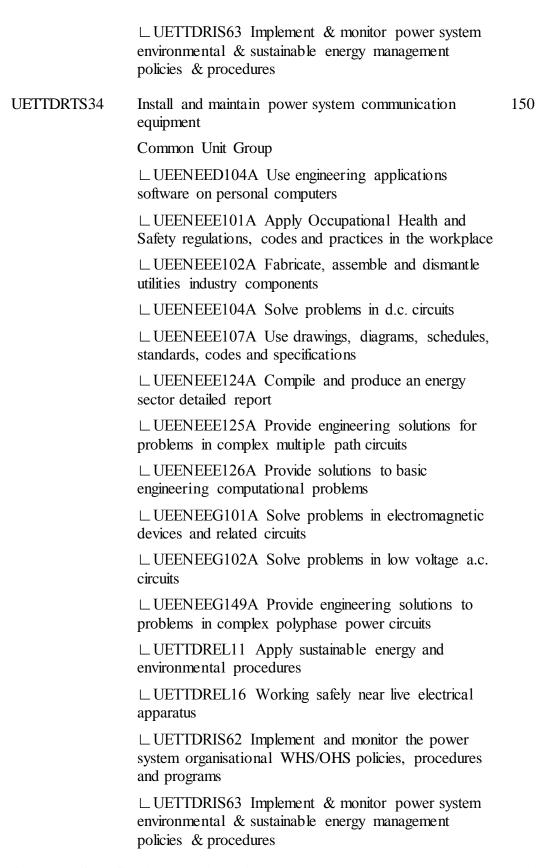
∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits

∟UETTDREL11 Apply sustainable energy and environmental procedures

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Group E: Qualification elective units

Weighting Points

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UETTDRDS40 Prepare and appraise power systems financial impact 160 statements Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ∟ UEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A 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 ∟ 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 LUEENEED104A Use engineering applications software on personal computers LUEENEEE102A 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

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∟ UETTDRTS21 Maintain interdependent network

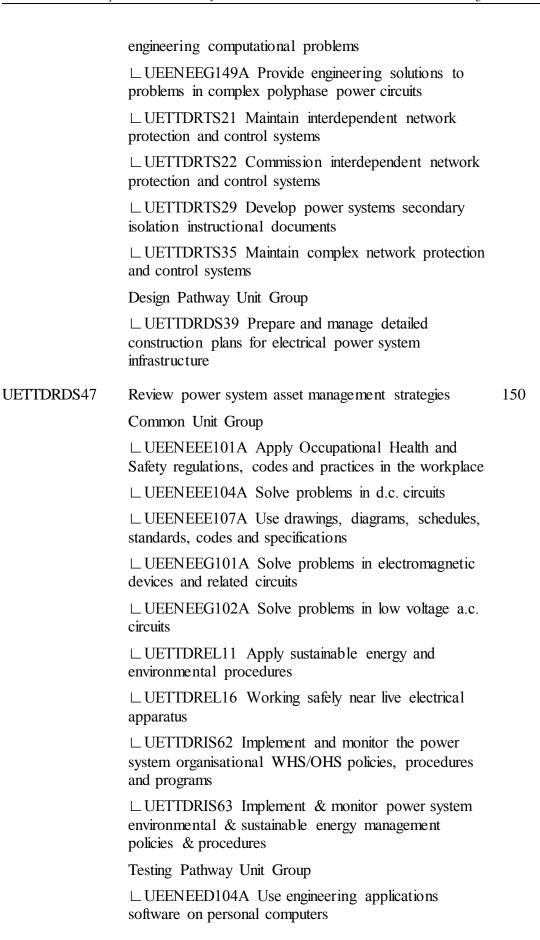
∟ UETTDRTS22 Commission interdependent network

protection and control systems

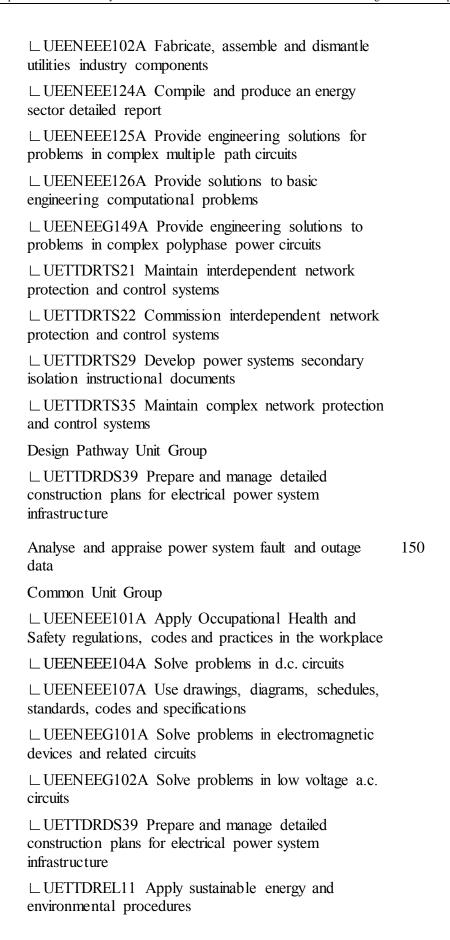
protection and control systems

∟ UETTDRTS29 Develop power systems secondary isolation instructional documents ∟ UETTDRTS35 Maintain complex network protection 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 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 ∟ 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 Testing Pathway Unit Group ∟ UEENEED104A Use engineering applications software on personal computers LUEENEEE102A 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

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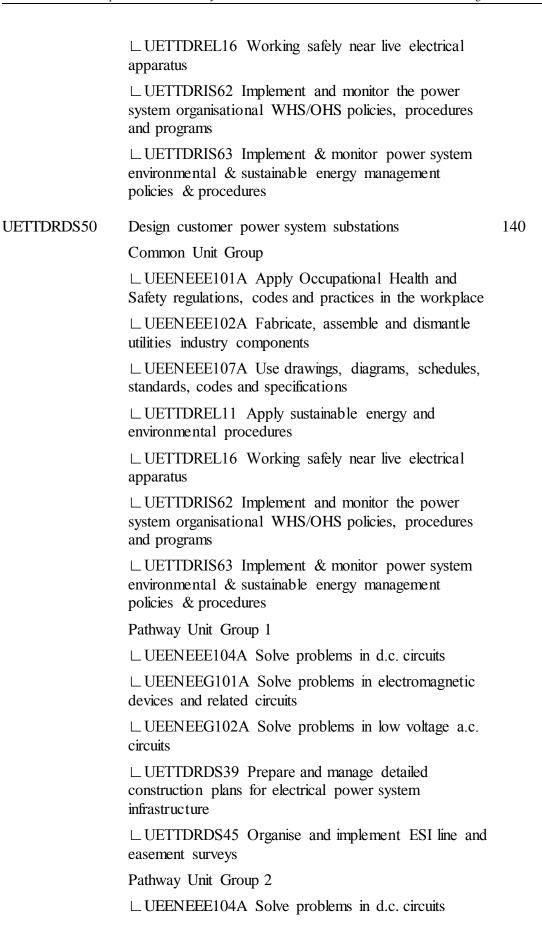


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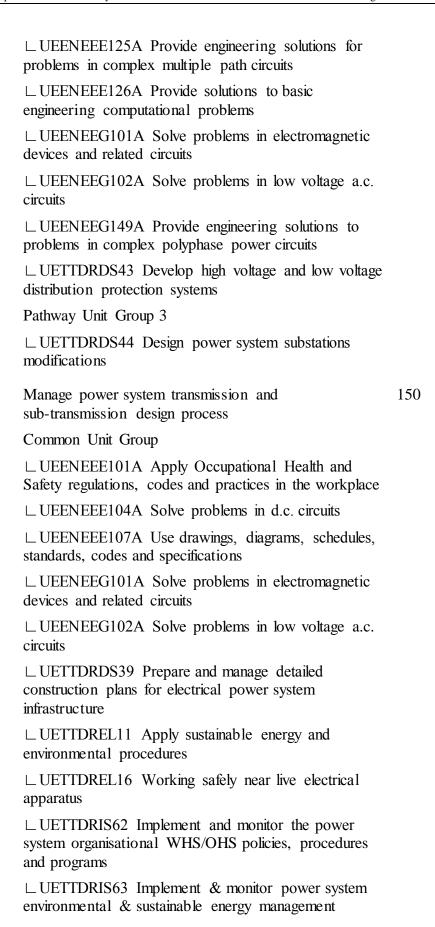
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UETTDRDS48



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UETTDRDS51



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policies & procedures

UETTDRDS52 Design power system transmission, sub-transmission 160 and zone substation buildings 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 **UETTDRDS53** 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 ∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications ∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits

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∟ UEENEEG102A 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
Design power system transmission and sub-transmission 180 protection and control
Common Unit Group
☐ UEENEEE101A 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
☐ UEENEEG101A Solve problems in electromagnetic devices and related circuits
∟ UEENEEG102A 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

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UETTDRDS54

UETTDRDS55

and programs ∟ UETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures 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 LUEENEEE104A Solve problems in d.c. circuits ∟ UEENEE107A Use drawings, diagrams, schedules, standards, codes and specifications LUEENEEG101A Solve problems in electromagnetic devices and related circuits ∟ UEENEEG102A 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

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

UETTDRDS56

Design power system transmission, sub-transmission & 160 zone substation civil & structural components

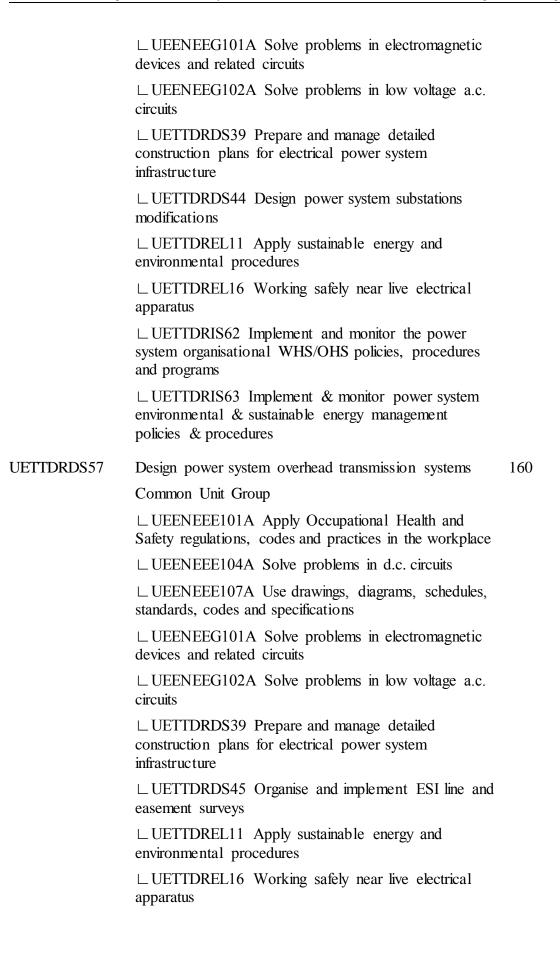
Common Unit Group

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

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∟ 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 **UETTDRDS58** 160 Design underground transmission systems Common Unit Group LUEENEE101A 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 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 ∟ UETTDRDS45 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 and programs LUETTDRIS63 Implement & monitor power system environmental & sustainable energy management policies & procedures **UETTDRIS71** Diagnose and rectify faults in electrical energy supply 60 transmission systems Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace LUEENEEE102A Fabricate, assemble and dismantle utilities industry components

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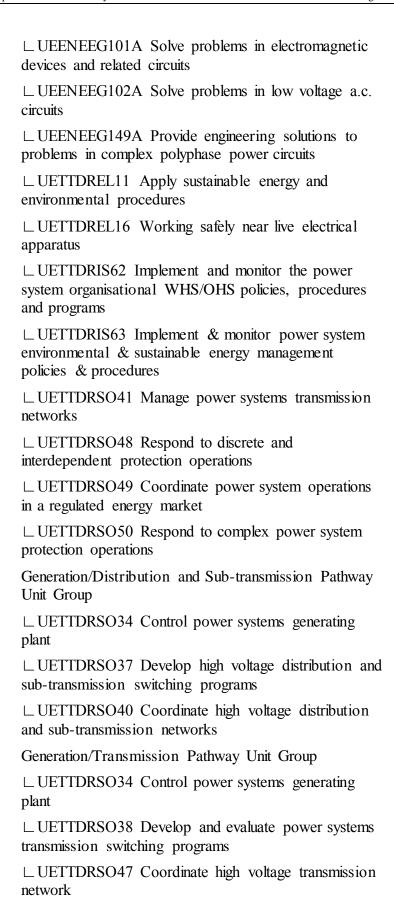
☐ UEENEEE104A Solve problems in d.c. circuits
∟ UEENEEE105A Fix and secure electrotechnology equipment
∟ UEENEEE107A Use drawings, diagrams, schedules, standards, codes and specifications
∟UEENEEG101A Solve problems in electromagnetic devices and related circuits
∟UEENEEG102A Solve problems in low voltage a.c. circuits
∟ UEENEEG006A Solve problems in single and three phase low voltage machines
∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits
∟ UETTDRIS67 Solve problems in energy supply network equipment
∟ UETTDRIS68 Solve problems in energy supply network protection equipment and systems
∟UETTDRIS69 Diagnose and rectify faults in energy supply apparatus
Develop engineering solutions for energy supply power 60 transformer problems
Common Unit Group
Common Unit Group LUEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace
∟ UEENEEE101A Apply Occupational Health and
☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ☐ UEENEEE102A Fabricate, assemble and dismantle
☐ UEENEEE101A Apply Occupational Health and Safety regulations, codes and practices in the workplace ☐ UEENEEE102A Fabricate, assemble and dismantle utilities industry components
□ 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
☐ 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,
☐ 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 ☐ UEENEEE125A Provide engineering solutions for
☐ 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 ☐ UEENEEE125A Provide engineering solutions for problems in complex multiple path circuits ☐ UEENEEE126A Provide solutions to basic

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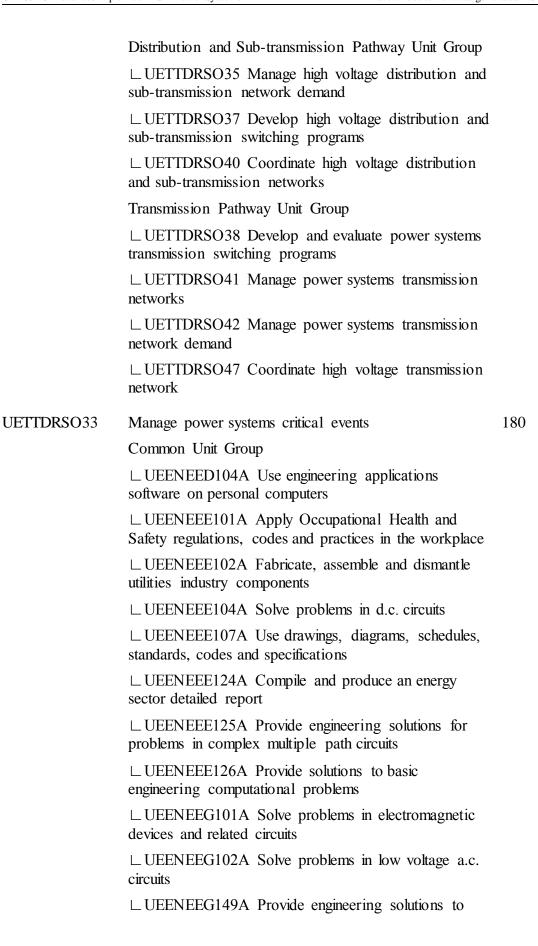
UETTDRIS73

LUEENEEG006A Solve problems in single and three phase low voltage machines ∟ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits LUEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETTDRIS67 Solve problems in energy supply network equipment ∟ UETTDRIS68 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 LUETTDRIS71 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 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 ∟ 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

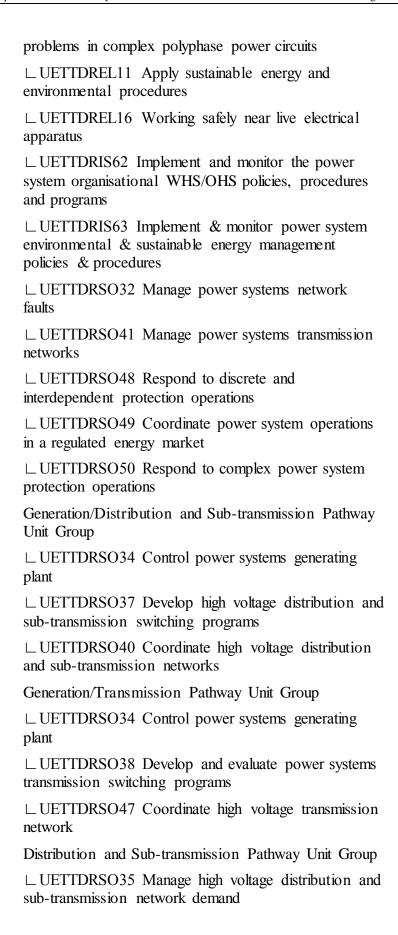
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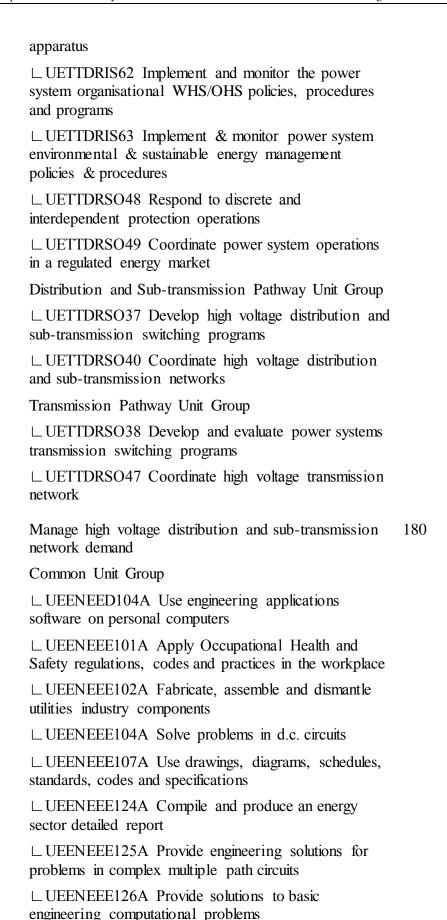


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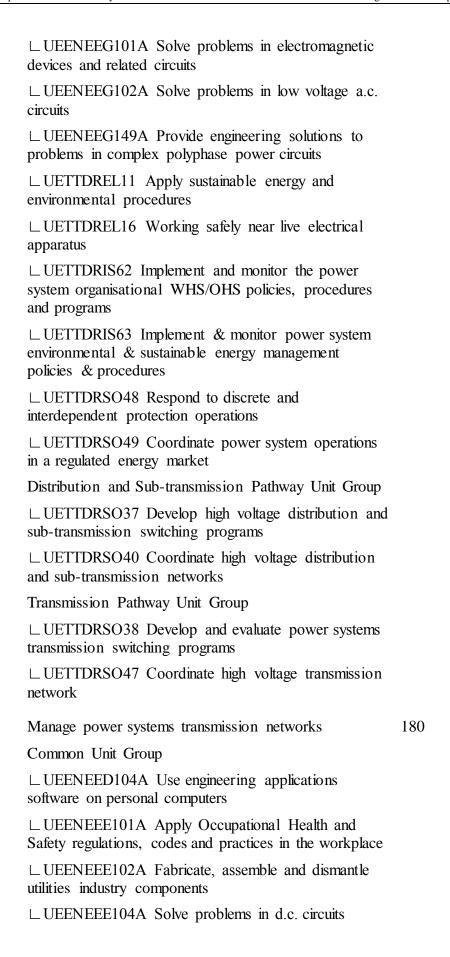
UETTDRSO34

∟ UETTDRSO37 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 Control power systems generating plant 140 Common Unit Group ∟ UEENEED104A Use engineering applications software on personal computers ∟ UEENEE101A 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 ∟ 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

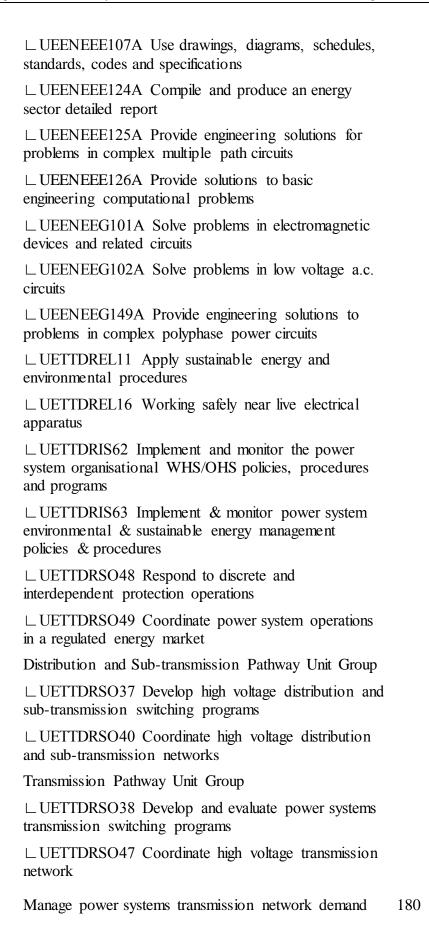
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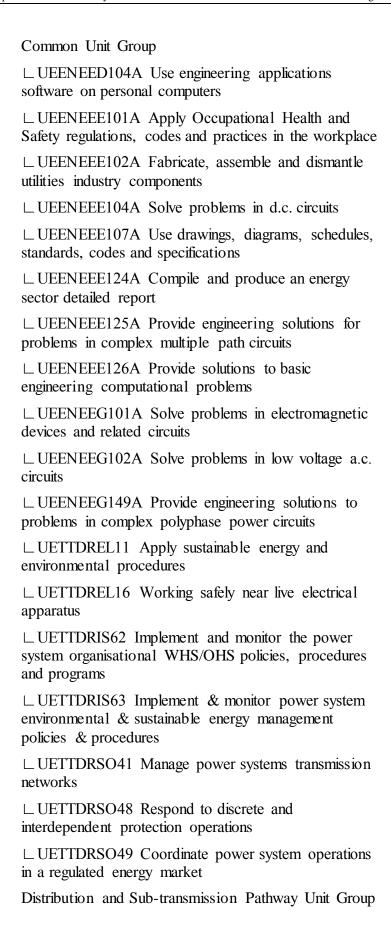
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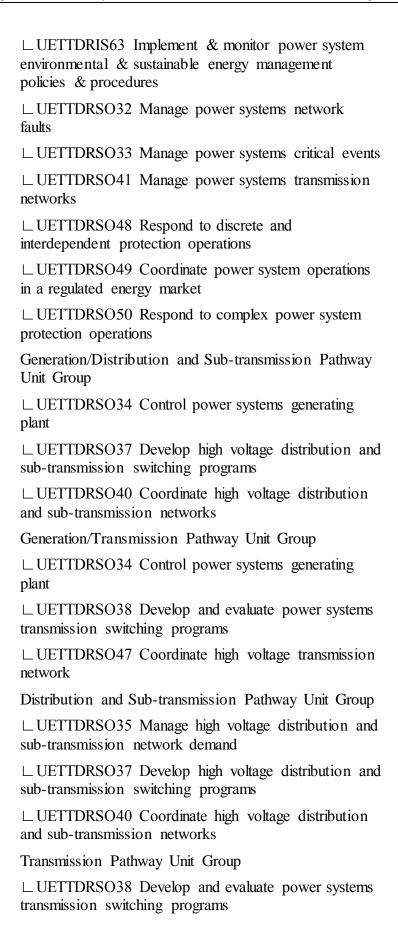
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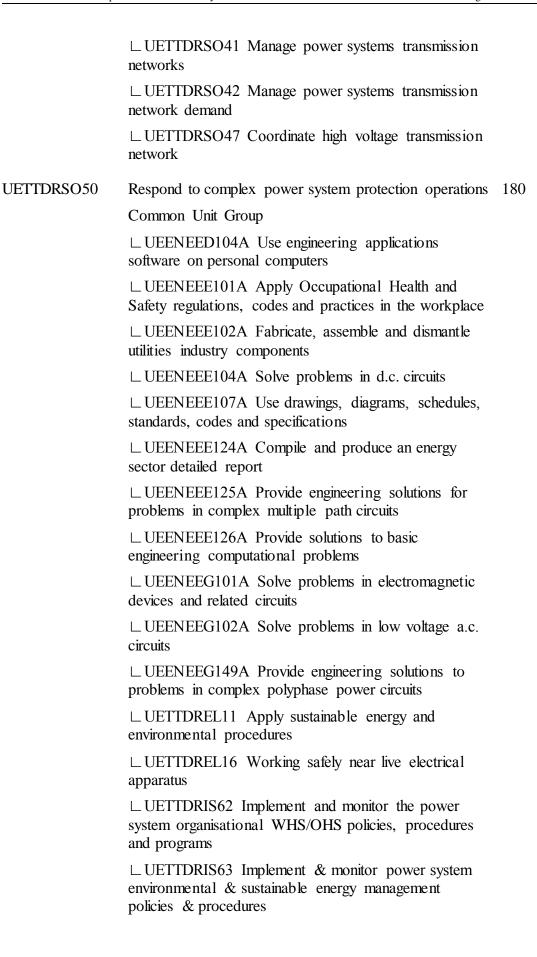
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∟ UETTDRSO37 Develop high voltage distribution and sub-transmission switching programs ∟ UETTDRSO40 Coordinate high voltage distribution and sub-transmission networks Transmission Pathway Unit Group ∟ UETTDRSO38 Develop and evaluate power systems transmission switching programs ∟ UETTDRSO47 Coordinate high voltage transmission network **UETTDRSO44** Develop crisis power systems management plans 140 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 ∟ UEENEEE107A 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

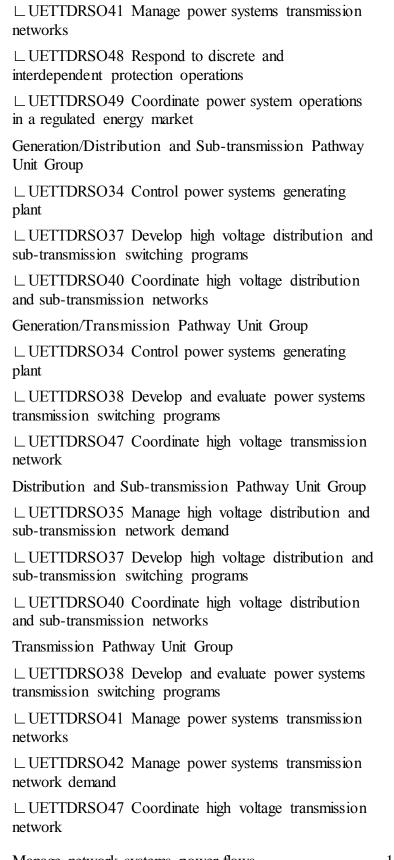
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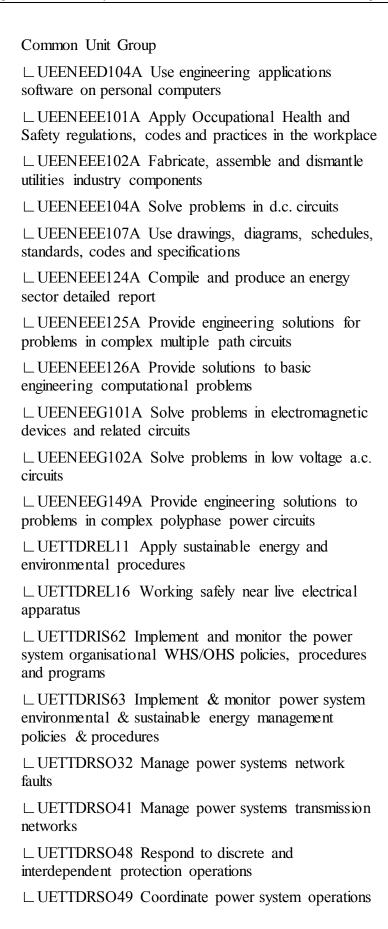


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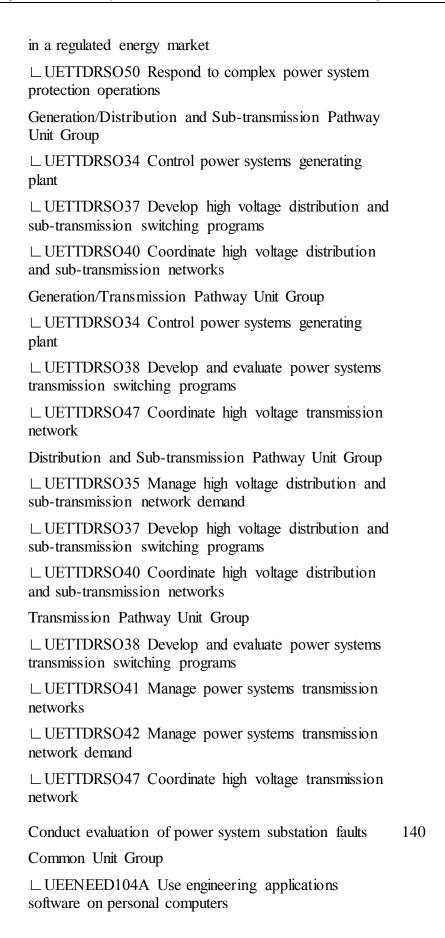


UETTDRSO51 180 Manage network systems power flows

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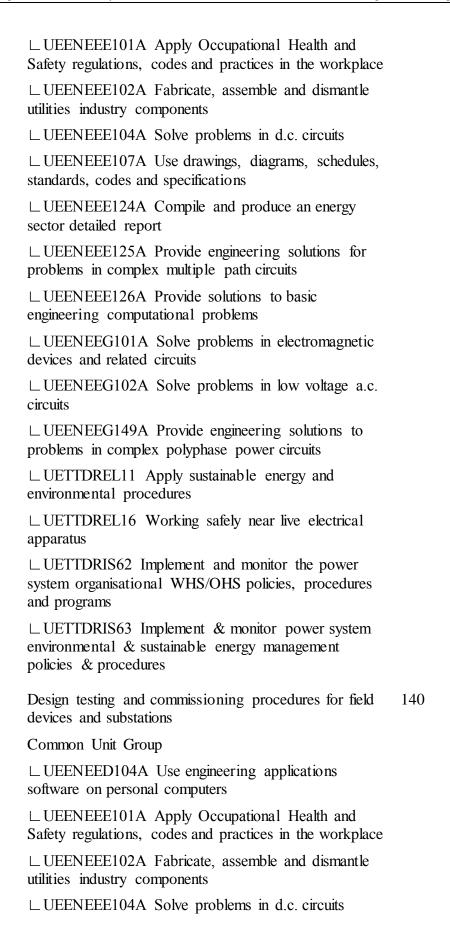


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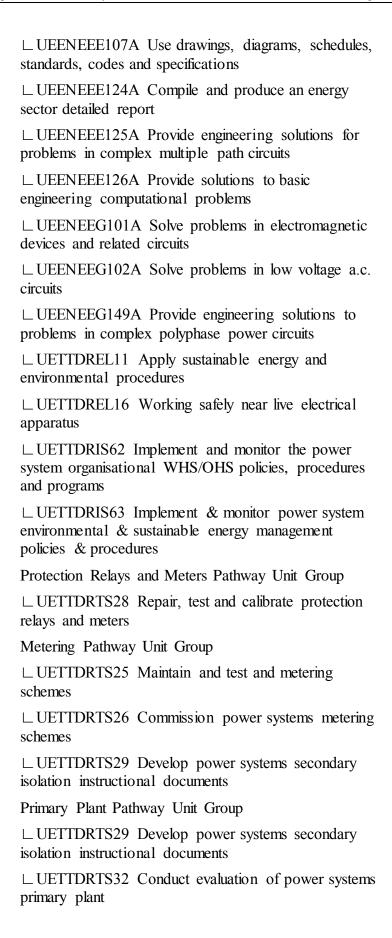
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UETTDRTS23



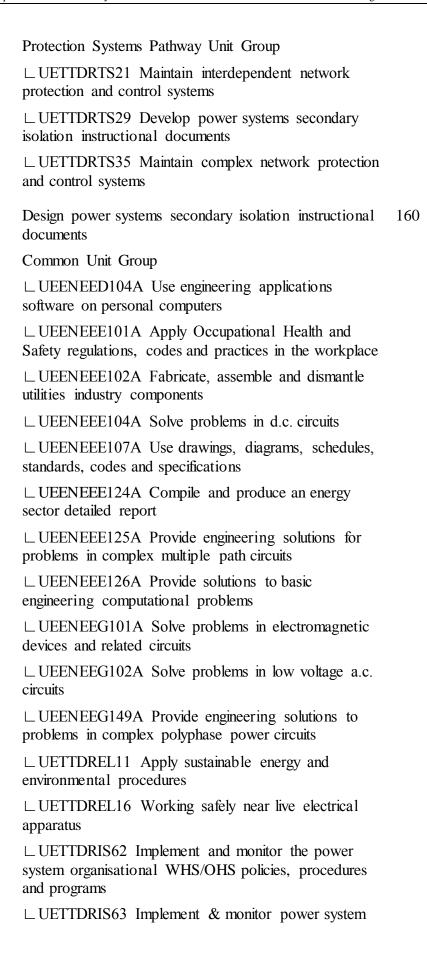
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UETTDRTS24



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UETTDRTS30



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UETTDRTS32

environmental & sustainable energy management policies & procedures Conduct evaluation of power systems primary plant 160 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 ∟ UEENEEG102A Solve problems in low voltage a.c. circuits ∟ UEENEEG149A Provide engineering solutions to problems in complex polyphase power circuits LUETTDREL11 Apply sustainable energy and

 \bot UETTDREL16 Working safely near live electrical apparatus

LUETTDRIS62 Implement and monitor the power system organisational WHS/OHS policies, procedures and programs

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

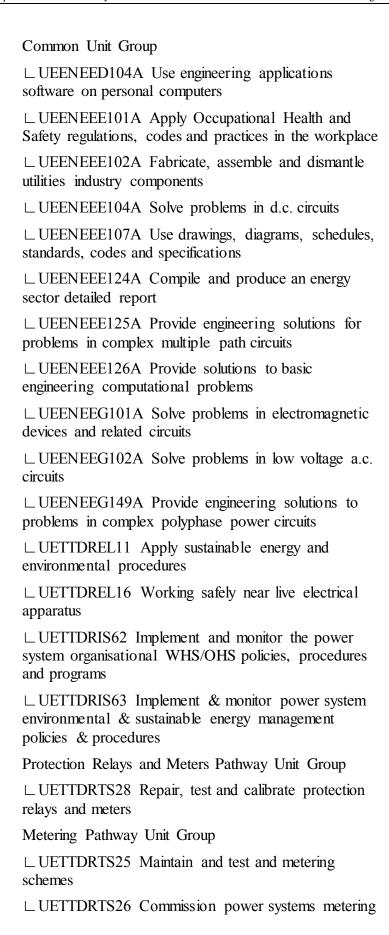
∟ UETTDRTS29 Develop power systems secondary isolation instructional documents

UETTDRTS33 Undertake power systems project management of substation augmentation and maintenance

environmental procedures

180

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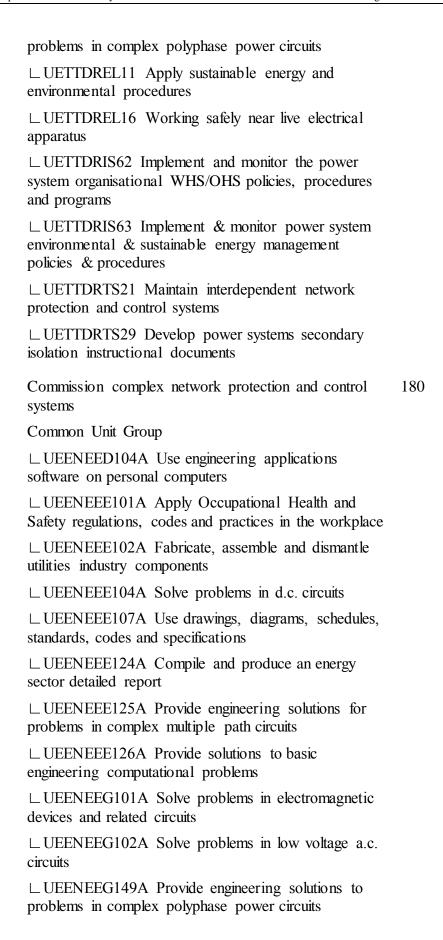
UETTDRTS35

schemes ∟ UETTDRTS29 Develop power systems secondary isolation instructional documents Primary Plant Pathway Unit Group ∟ UETTDRTS29 Develop power systems secondary isolation instructional documents ∟ UETTDRTS32 Conduct evaluation of power systems primary plant Protection Systems Pathway Unit Group ∟ UETTDRTS21 Maintain interdependent network protection and control systems ∟ UETTDRTS29 Develop power systems secondary isolation instructional documents ∟ UETTDRTS35 Maintain complex network protection and control systems Maintain complex network protection and control 180 systems 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 LUEENEEE125A 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

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LUEENEEG149A Provide engineering solutions to

UETTDRTS36



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☐ 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
☐ 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 and control systems

Qualification Mapping Information

This qualification replaces and is equivalent to UET60212 Advanced Diploma of ESI - Power Systems

Links

 $\label{lem:companion} \begin{tabular}{ll} Companion Volume Implementation Guides are found in VETNet - $$\underline{https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=229bace1-b7bc-4653-9300-dffb1}$$\underline{3ecfad7}$ \end{tabular}$

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