

Advanced Diploma in Electrical Engineering Learning System

Aligned with

AUSTRALIA

UEE62211 Advanced Diploma of Electrical Engineering

NEW ZEALAND

National Diploma in Electricity Supply (Level 6)

Unit Code: EE301	Advanced Electrical Drafting
Writing on whiteboard+Audio	ElectricalDrawing1.zip ElectricalDrawing2.zip ElectricalDrawing3.pdf GeneralDrawing1.zip GeneralDrawing2.zip ElectricInstallationDesign.zip ElectSystSafety1.zip ElectSystSafety2.zip FireProtHeatingTestingEarthing.zip GeneralWiring.zip HazardLightingPanel.zip PanelRCDWireSpecial_Installation.zip 6-ElectricalDrawing 12-Specifications 13-BSpecifications

	14-Specifications Propose strategies to identify client needs 1.pdf 1WiringInstallationDrawing 7MachineDriveSystems 8PowerElectronicsDevices AutoCAD 2D 3D Lessons Symbol A Symbol B Symbol C Symbol D Symbol E Symbol F Symbol G
Exercise	E071 MEM09004 Tutorial E071 MEM09004 Tutorial Mod.zip MEM09004-Electronics Drawing Electronics Drawing.zip
Reference Resources + Textbooks	E071DesiE071HVOverheadConductors Wk2-3 .zip 6-ElectricalDrawing
Australian Curriculum Units	
UEENEEG179A	Develop detailed electrical drawings

Unit Code: EE302	Advanced Engineering Mathematics
Teaching Video	Advanced Engineering Maths Video
Writing on whiteboard+Audio	Maths 2-E026.zip
Exercise	E026 Tutorial questions.zip EXERCISES Page 18 to 29

Theory Practice Test	<u>E026</u> E026 MCQ Practice 1 E026 MCQ Practice 2 E026 MCQ Practice 3
Reference Resources + Textbooks	E026 Maths 1 E026 6032H 1 E026 6032H
Australian Curriculum Units	
UEENEEE127A	Use advanced computational processes to provide solutions to energy sector engineering problems

Unit Code: EE303	Transmission Line
Teaching Video	G042 Lesson 1-Transmission line introduction.zip G042 Lesson 2-DC Line+Line reflection.zip G042 Lesson 3-Power line calculation.zip G042 Lesson 4-Line model+Economic aspect.zip G042 Lesson 5-Time value of money+Line reflection.zip G042 Lesson 6-Line matching+Wave guide.zip G042 Lesson 7-Wave guide.zip G042 Lesson 8-Microstrip line.zip G042 Lesson 9-Per unit value of line.zip G042 Lesson 10-Line constants.zip G042 Lesson 11-Smith chart.zip G042 Lesson 12-Four terminals network.zip
Writing on whiteboard+Audio	Transmission line-G042.zip
Exercise	EXERCISES Page 143 to 151
Theory Practice Test	G042 MCQ Practice 1 G042 MCQ Practice 2
Practical Practice	Circuit Connection Assessment Number 3-9 Effect of transformer on power line

	<p>http://www.filefactory.com/file/1ufyhdxvnd/n/Practical_Semester_1_A_pdf</p> <p>http://www.filefactory.com/file/1otej68edvix/n/3_9_xls</p> <p>http://www.filefactory.com/file/6d9b519ms1cj/n/3_9_doc</p> <p>http://www.filefactory.com/file/71uzi338gzqt/n/3-9_pdf</p> <p><u>Circuit Connection Assessment Number 3-10 Tee and Pi Equivalent Line</u></p> <p>http://www.filefactory.com/file/1ufyhdxvnd/n/Practical_Semester_1_A_pdf</p> <p>http://www.filefactory.com/file/1pyk08zwbib1/n/3_10_doc</p> <p>http://www.filefactory.com/file/6w79kxk982a5/n/3-10_pdf</p>
<p>Reference Resources + Textbooks</p>	<p>G042 Part 3 Notes</p> <p>G037 G038 G030Pt1 7762AG Notes</p> <p>G015 G042 G037 G038 G039 Part 2 Notes</p> <p>G015 G037 G038 G030Pt1 7762AG Notes</p>
	<p>ESI 5 Transmission System Practicals.zip</p> <p>ESI 25 27 31 32 Part 2 Installation and testing 0.zip</p> <p>ESI 25 27 31 32 Part 3 Electrical Drawing.zip</p> <p>ESI 25 27 31 32 Part 4 Data Com and Wiring.zip</p> <p>ESI 25 27 31 32 Part 5 Installation Work Books.zip</p> <p>ESI 25 27 31 32 Part 6 Switching 1 2.zip</p> <p>ESI 25 27 31 32 Part 7 Switching 3 4.zip</p> <p>ESI 25 27 31 32 Part 8a Electrical Installation Requirement 1.zip</p> <p>ESI 25 27 31 32 Part 8b Electrical Installation Requ</p>

	Requirement 2.zip ESI 25 27 31 32 Part 9 Electrical Installation Requirement 2 Questions.zip
Australian Curriculum Units	
UETTDRIS71A	Diagnose and rectify faults in electrical energy supply transmission systems

Unit Code: EE304	Power System Protection
Teaching Video	G015(AE)Lesson 1-Power system protection scheme.zip G015(AE)Lesson 2-Differential relay.zip G015(AE)Lesson 3-Over current & earth fault protection.zip G015(AE)Lesson 4-Three phase differential relay.zip G015(AE)Lesson 5-Current time grading.zip G015(AE)Lesson 7-CT PT.zip G015(AE)Lesson 8-Distance relay.zip G015(AE)Lesson 9-Telecom in power protection.zip
Writing on whiteboard+Audio	AE.zip
Exercise	AA AB AD AE AF AG AH 4269T Tutorials EXERCISES Page 121 to 127
Theory Practice Test	<u>G015+G046</u> G015+G046 MCQ Practice 1 G015+G046 MCQ Practice 2 G015+G046 MCQ Practice 3 G015+G046 MCQ Practice 4 G015+G046 MCQ Practice 5
Practical Practice	<u>Circuit Connection Assessment Number 3-4 Over Current Relay</u>

	<p>http://www.filefactory.com/file/1ufyhdxvnd/n/Practical_Semester_1_A.pdf</p> <p>http://www.filefactory.com/file/6fhmwq8kenzx/n/3-4.pdf</p> <p>http://www.filefactory.com/file/2ncfb8i5jlh/n/3_4.xls</p> <p>http://www.filefactory.com/file/n2vd5iew8ob/n/3_4.doc</p> <p><u>Circuit Connection Assessment Number 4.1 Power Practical CT PT Ratio Measurement</u></p> <p>http://www.filefactory.com/file/798ausrs1m6p/n/4.1.doc</p> <p>http://www.filefactory.com/file/57e2el72is2v/n/4.1.xls</p> <p>http://www.filefactory.com/file/798ausrs1m6p/n/4.1.doc</p> <p>http://www.filefactory.com/file/c4779istkit/n/Power_Practical-CT_PT_Ratio_measurement.pdf</p>
<p>Reference Resources + Textbooks</p>	<p>G015 G042 G037 G038 G039 Part 2 Notes</p> <p>ESI 27.1 Arts and Science of Protective Relaying 1.zip</p> <p>ESI 27.2 Arts and Science of Protective Relaying 2.zip</p> <p>ESI 27.3 Arts and Science of Protective Relaying 3.zip</p> <p>ESI 27.4Circuit Breaker 1.zip</p> <p>ESI 27.5 Circuit Breaker 2.zip</p> <p>ESI 27 1 Relay Principle 1.zip</p> <p>ESI 27 1 Relay Principle 2.zip</p> <p>ESI 27 1 Relay Principle 3.zip</p> <p>ESI 27.2 Element of Relay Protection.zip</p> <p>ESI 27.3 Relay operation characteristics.zip</p> <p>ESI 27.4 Relay connection and response.zip</p> <p>ESI 27.5 Machine and busbar protection 1.zip</p>

	ESI 27.5 Machine and busbar protection 2.zip ESI 27.5 Machine and busbar protection 3.zip ESI 27.6 Feeder protection.zip ESI 27.7 CT and PT.zip ESI 27.9 Comparator.zip ESI 27.10 Static relay.zip ESI 27.11 Test and maintenance.zip ESI 27.12 Circuit Breaker 1.zip ESI 27.12 Circuit Breaker 2.zip ESI 27.12 Circuit Breaker 3.zip ESI 27.12 Circuit Breaker 4.zip ESI 27.8 Line protection 1.zip ESI 27.8 Line protection 2.zip ESI 27.8 Line protection 3.zip ESI 27.5 Machine and busbar protection 2 0.zip
Australian Curriculum Units	
UETTDRIS68A	Solve problems in energy supply network protection equipment and systems
UETTDRIS74A	Develop engineering solutions for energy supply system protection problems

Unit Code: EE305	Power Transformer
Teaching Video	G040 Lesson 1 Power transformer rating 1.zip G040 Lesson 1 Power transformer rating 2.zip G040 Lesson 2 Open circuit short circuit test.zip

	<p>G040 Lesson 3 Transformer regulation.zip</p> <p>G040 Lesson 4 Power transformer connection.zip</p> <p>G040 Lesson 5 Maximum efficiency.zip</p> <p>G040 Lesson 6 Transformer parallel operation.zip</p> <p>G040 Lesson 7 Harmonic in transformer.zip</p> <p>G040 Lesson 8 Transformer problem + auto transformer.zip</p> <p>G040 Lesson 9 Transformer rating cooling connection tap changing.zip</p> <p>G040 Lesson 10 Phase shift transformer.zip</p>
Writing on whiteboard+Audio	Power Transformer+Line-G040.zip
Exercise	<p>New-AA AB AD AE AF AG AH 4269T Tutorials</p> <p>EXERCISES Page 132 to 142</p>
Theory Practice Test	G040 MCQ Practice
Practical Practice	<p>Circuit Connection Assessment Number 5-9 Transformer connection</p> <p>http://www.filefactory.com/file/116upzqzyrdx/n/5-9_pdf</p> <p>http://www.filefactory.com/file/1umbdtikfoan/n/5_9_doc</p> <p>http://www.filefactory.com/file/65wswrf37mnv/n/Practical-G040-Transformer connection pdf</p> <p>Circuit Connection Assessment Number 5-8 Power transformer regulation</p> <p>http://www.filefactory.com/file/1kue47rqpq79/n/5-8_pdf</p> <p>http://www.filefactory.com/file/2ybeou7gy6ax/n/Practical-G040-Power Transformer Percentage Regulation pdf</p> <p>http://www.filefactory.com/file/6bicpfi3tprh/n/5_8_doc</p>

Reference Resources + Textbooks	G040 7762AD Notes ESI 4 11 Power Transformer.zip ESI 4 Power Transformer.zip
Australian Curriculum Units	
UETTD RIS73A	Develop engineering solutions for energy supply power transformer problems

Unit Code: EE306	Electro-mechanical Control
Teaching Video	
Writing on whiteboard+Audio	I020 Part 1 I020 Part 2
Exercise	EXERCISES Page to
Theory Practice Test	
Practical Practice	
Reference Resources + Textbooks	PID.zip I008I020D034F014DataCommA.zip I008I020D034F014DataCommB.zip I008I020D034F014DataCommC.zip Microprocessor Notes upload.zip Microprocessor Textbook to upload.zip Microprocessor References to upload.zip http://kyawnaing325.zoomshare.com/files/6/DigitalElectronics.htm http://kyawnaing325.zoomshare.com/files/6/7794CD-DigitalElectronics.htm
Australian Curriculum Units	
UEENEEI129A	Set up electronically controlled mechanically operated complex systems

Unit Code: EE307	Energy Efficient Building Design
Teaching Video	<p>K041 Lesson 1-Solar Design.zip</p> <p>K041 Lesson 2-Basic psychrometric chart.zip</p> <p>K041 Lesson 3-Total heat resistance.zip</p> <p>K041 Lesson 4-U value Heat conductance calculation.zip</p> <p>K041 Lesson 5-Glazing+Net Heat gain heat loss.zip</p> <p>K041 Lesson 6-Shading.zip</p> <p>K041 Lesson 7-Insulation+ Thermal mass.zip</p> <p>K041 Lesson 8-Thermal mass insulation.zip</p> <p>K041 Lesson 9-Airconditioning load calculation.zip</p> <p>K041 Lesson 10-Heat gain per day.zip</p> <p>K041 Lesson 11-Ventilation.zip</p> <p>K041 Lesson 12-Building heating load</p> <p>K041 Lesson 14-Design for Australian climate.zip</p> <p>K041 Lesson 15-Domestic solar hot water system.zip</p> <p>K041 Lesson 16-Energy efficiency+Lighting.zip</p> <p>K041 Lesson 17-Illumination+Smoke alarm.zip</p> <p><u>K041 Lesson 18-Water supply.zip</u></p> <p><u>K041 Lesson 19-Ventilation+Lighting control.zip</u></p> <p><u>K041 Lesson 20-Electrical system design.zip</u></p> <p><u>K041 Lesson 21-Building materials.zip</u></p>
Writing on whiteboard+Audio	Building Design+Material Science-K041+E047.zip

Exercise	EXERCISES Page 263 to 274
Reference Resources + Textbooks	K041Textbook1.zip K041Textbook2.zip K041Textbook3.zip K041 Building Design 1 K041 Building Design 2 K041Airconditioning K041Energy Management Textbook E047Mech
Australian Curriculum Units	
UEENEEK151A	Develop effective engineering strategies for energy reduction in buildings

Unit Code: EE308	Sustainability
Australian Curriculum Units	
UEENEEK132A	Develop strategies to address environmental and sustainability issues in the energy sector
Reference Resources + Textbooks	

Lesson		
Week1	Week1	Lesson 1a Lesson 1b Lesson 1 c
	Week 2	Lesson 2a Lesson 2b Lesson 2c Lesson 2d
Week 2	Week 3	Lesson 3a Lesson 3b Energy Analysis + Renewable Energy
	Week 4	Lesson 4 -NREL Energy Analysis
Week 3	Week 5	Lesson 5a Lesson 5b Lesson 5c Renewable Energy Resources
	Week 6	Lesson 6 - Renewable Energy Packages Primary Energy

		Embodied Energy
Week 4	Week 7	Lesson 7a Lesson 7b
	Week 8	Lesson 8 Climate Change Energy Efficiency & global warming
Week 5	Week 9	Lesson 9-End Use Energy Part 1 Part 2 Part 3 Basket Products Appliances Star Rating
	Week10	Lesson 10-Solar Energy Part 1a Part 1b
Week 6	Week 11	Lesson 11-Solar Energy Part 2a Part 2b
	Week 12	Lesson 12-Solar Energy Part 3
Week 7	Week 13	Lesson 13-Micro Hydro Power Plants
	Week 14	Lesson 14-Wind Energy -Part 1 Wind Part 2 Wind Energy Concept Part 3 Wind Energy Conversion
Week 8	Week 15	Lesson 15- Part 1 Wind Energy Part 2PID Wind Energy Conversion Part 3 Low & medium voltage conversion
	Week 16	Lesson 16 Part 1 Control Structure Part 2 Doubly fed generator
Week 9	Week 17	Lesson 17- Stand Alone Power System Part 1 Part 2-Wind + stand Alone Standard

Unit Code: EE309	Project Management
Teaching Video	Project Specifications+ Project Planning +Project Management (1) E071+G069+G070Part1.zip Project Specifications+ Project Planning +Project Management (2)

	E071+G069+G070Part2.zip
Writing on whiteboard+Audio	Project Management Class Teaching
Exercise	Project Management Tutorial.zip EXERCISES Page 201 to 206
Reference Resources + Textbooks	E024 ProjectInstruction.zip G069 G070Part1 G069 G070Part2 G069 G070Part3 G069 G070Part4 Ch9 10 http://onlineclass1.zoomshare.com/ Power project 1.pdf Power project 2.pdf Projectplanning and management.zip Propose strategies to identify client needs 1.pdf Costing Quotation.zip
Australian Curriculum Units	
UEENEEE015B	Develop design briefs for electrotechnology projects
UEENEEG169A	Manage large electrical projects
UEENEEG170A	Plan large electrical projects
UEENEEE124A	Compile and produce an energy sector detailed report

Unit Code: EE210	Electrical Engineering Business Studies
Reference Resources + Textbooks	<u>Business Units Online Lesson Study Link</u> <u>UEE62211 Business and Management Units Instruction</u> <u>Business Units Competency</u>
Exercise	<u>Business units assignments</u>
Australian Curriculum Units	
BSBINM501A	Manage an information or knowledge management system
BSBMGT516A	Facilitate continuous improvement
BSBINN502A	Build and sustain an innovative work environment
BSBWOR502A	Ensure team effectiveness