



real skills for
real careers

*Give your trade
career a boost*



UEE62111
ADVANCED DIPLOMA
OF ENGINEERING
TECHNOLOGY
ELECTRICAL

*Training & assessment
by Project
Management Vision*



Supported by
**Government of
South Australia**



UEE62111

ADVANCED DIPLOMA OF ENGINEERING TECHNOLOGY ELECTRICAL



COURSE DURATION

6 Days + 6 Days
+ 6 Days + 6 Days
+ 6 Days



COURSE COSTS

(per person)

\$ 18,000

*(includes issue of UEE50411
Diploma of Electrical Engineering)*

OR

\$ 10,000**

(if eligible for WorkReady SA Funding)



LOCATION

PEER

1042 Port Road
Albert Park 5014



OBJECTIVES

- To develop engineering specification and design briefs for electrical engineering projects
- To broaden knowledge in understanding how processing plant architectures are put together
- To write up plant control philosophy and project engineering specification
- To design explosion-protected electrical systems and installations – gas/ dust atmospheres/ pressurization/ coal mining
- To plan and manage large electrical projects including contract variations, team effectiveness and facilitating continuous improvements
- To solve problems in complex multiple path and polyphase power circuits
- To solve electro-technology engineering problems using material science and physics
- To open more doors for you to apply for Technical Authority and Team Leadership roles in areas of electrical instrumentation and control system engineering and hazardous area compliance to local regulations and national standards on multiple projects.



OUTCOME

Full qualification – UEE62111 – Advanced Diploma of Engineering Technology – Electrical

Students who hold an unrestricted electrical license issued by a state or Territory and are successfully competent in both theoretical and practical training, completing all units of competency in the training package (refer <http://training.gov.au/Training/Details/UEE62111>), will receive the full qualifications



SCOPE

This qualification provides competencies to assess and manage risks, undertake design, validation/evaluation and audit functions and provide technical advice/sales related to electrical equipment, instrumentation and control systems installed in hazardous areas in the chemical, mineral processing and oil and gas industry.



TARGET WORKFORCE

This post-trade and professional development gap training is aimed at those keen participants who and are keen on learning and gaining electrical equipment, instrumentation and control systems and hazardous area skills at the next level of complexity. This course is for anyone involved in the “supervision and compliance” side of electrical and instrumentation work, i.e. design, equipment and installation specification, planning and managing projects, auditing or inspection of electrical equipment, instrumentation and control systems in hazardous areas. The course creates pathway to become a Technical Authority and Team Leader responsible for ensuring compliance of EEHA at site, to local



regulations and latest AS/NZS standards. Electricians and instrument technicians in supervision roles, are the most common attendees, but we also train electrical engineers who perform inspections, plan and manage the electrical and EEHA projects as part of their role. The course covers the theory and practice of field work in hazardous areas.

PRE-REQUISITES

The course is post-trade training, so we usually require a current electrical license issued by any Australian state or territory and UEE42611 Certificate IV in Hazardous Areas – Electrical or UEE40411 Certificate IV in Electrical Instrumentation or UEE31211 Certificate III in Instrumentation and Control. Holding of electrical license or the above qualifications is preferred but not essential. Additional gap training may be offered to electrical workers who have industry experience but not the qualification.



Delivered at PEER training facility or at a clients facility subject to suitability.

COURSE STRUCTURE



TRAINING METHOD

Blended delivery of 50% theory and 50% practical training with equipment that you are likely to see in a typical industrial environment in electrical, instrumentation and control system with hazardous areas.



TRAINING CONTENT

You will undergo one on one practical training with industry experienced, qualified Electrical and Instrumentation Professional Trainers/ Engineers who have hands on experience on electrical instrumentation and control system installations in hazardous areas. The training will be conducted, in the following areas, on the purpose-built hazardous areas and instrumentation skids with field instruments and control system that you are likely to see in a typical industrial EEHA installation:

1. Write specification and develop design briefs for electrical engineering projects
2. Design explosion-protected electrical systems and installations – gas/dust atmospheres/ Pressurisation/ coal mining
3. Conduct audit of hazardous areas installations – gas atmospheres
4. Plan and manage large electrical projects including contract variations
5. Apply material science and physics in solving electro-technology engineering problems
6. Provide solutions for problems in complex multiple path and polyphase power circuits
7. Ensure team effectiveness and facilitate continuous improvement
8. To broaden knowledge in understanding how processing plant architectures are put together
9. To write up plant control philosophy and project engineering specification

Small class sizes with flexible training to accommodate difficult rosters / work schedules.



- Fast tracked courses (6 Days + 6 Days + 6 Days + 6 Days + 6 Days) to allow for student's busy schedule
- Training is aligned to the requirements of latest IEC/AS/NZS 60079.14:2017, 60079.17:2017 and AS/NZS 4761 with industry experienced trainers
- All the courses have been developed in consultation with industry experts
- You will undergo one on one practical training with industry experienced, qualified Hazardous Area and Electrical Professional Trainers

Eligibility for Award of Full Qualification

When you provide copies of your qualification and record of results (transcripts) for UEE40411 Certificate IV in Electrical – Instrumentation and/ or UEE42611 – Certificate IV in Hazardous Areas – Electrical, along with your Unrestricted Electrician's License and evidence of industry currency you will be credited with units covered under these qualifications.

When you successfully completed the course, you will be awarded the qualification UEE62111 – Advanced Diploma of Engineering technology – Electrical

Units shown with a '+' in the preceding table have prerequisite units that must be met prior to, or concurrently with assessment of the related units. Some prerequisites are included in the gap training and the remainder can be achieved via credit for units already held if you are a licensed Electrician or through recognition of prior learning.

'Note: UEENEEG105A – Those holding an Unrestricted Electrician's License or equivalent issued in an Australian State or Territory meet the requirements of this unit and its prerequisite requirements' (UEE11 Training Package Release 1.5 December 2014).

Core Competency Standard Units All Core competency standard units to be achieved

Delivery Method

UEENEE104A+	Use engineering applications software on personal computers	PMV Training
UEENEE006B	Apply methods to maintain currency of industry developments	PMV Training
UEENEE011C	Manage risk in electrotechnology activities	PMV Training
UEENEE015B	Develop design briefs for electrotechnology projects	PMV Training
UEENEE071B	Write specifications for electrical engineering projects	PMV Training
UEENEE080A+	Apply industry and community standards to engineering activities	PMV Training
UEENEE081A+	Apply material science to solving electrotechnology engineering problems	PMV Training
UEENEE082A+	Apply physics to solving electrotechnology engineering problems	PMV Training
UEENEE083A	Establish and follow a competency development plan in an electrotechnology engineering discipline	PMV Training
UEENEE101A	Apply occupational health and safety regulations, codes and practices in the workplace	Electrical license
UEENEE102A	Fabricate, assemble and dismantle utilities industry components	Electrical license
UEENEE104A	Solve problems in d.c circuits	Electrical license
UEENEE105A	Fix and secure electrotechnology equipment	Electrical license
UEENEE107A	Use drawings, diagrams, schedules, standards, codes and specifications	Electrical licens

Core Competency Standard Units All Core competency standard units to be achieved		Delivery Method
UEENEE125A ♦	Provide engineering solutions for problems in complex multiple path circuits	PMV Training
UEENEE117A	Implement and monitor energy sector OHS policies and procedures	PMV Training
UEENEE124A	Compile and produce an energy sector detailed report	PMV Training
UEENEE126A ♦	Provide solutions to basic engineering computational problems	PMV Training
UEENEE137A	Document and apply measures to control OHS risks associated with electrotechnology work	Electrical license
UEENEEG006A	Solve problems in single and three phase low voltage machines	Electrical license
UEENEEG033A	Solve problems in single and three phase low voltage electrical apparatus and circuits	Electrical license
UEENEEG063A	Arrange circuits, control and protection for general electrical installations	Electrical license
UEENEEG101A	Solve problems in electromagnetic devices and related circuits	Electrical license
UEENEEG102A	Solve problems in low voltage a.c. circuits	Electrical license
UEENEEG103A	Install low voltage wiring and accessories	Electrical license
UEENEEG104A	Install appliances, switchgear and associated accessories for low voltage electrical installations	Electrical license
UEENEEG105A	Verify compliance and functionality of low voltage general electrical installations	Electrical License
UEENEEG106A	Terminate cables, cords and accessories for low voltage circuits	Electrical license
UEENEEG107A	Select wiring systems and cables for low voltage general electrical installations	Electrical license
UEENEEG108A	Trouble-shoot and repair faults in low voltage electrical apparatus and circuits	Electrical license
UEENEEG109A	Develop and connect electrical control circuits	Electrical license
UEENEEG149A ♦	Provide engineering solutions to problems in complex polyphase power circuits	PMV Training
UEENEEG169A ♦	Manage large electrical projects	PMV Training
UEENEEG170A ♦	Plan large electrical projects	PMV Training
UEENEEK132A	Develop strategies to address environmental and sustainability issues in the energy sector	PMV Training

Qualification Elective Units (Minimum 220 points of 720 electives points to be selected from Elective E and restriction applies on maximum numbers from Electives A, B, C and D)		Delivery Method
BSBINM501A	Manage an information or knowledge management system (50 Elective A)	PMV Training
BSBMGT502B	Manage people performance (70 Elective A)	PMV Training
BSBMGT516C	Facilitate continuous improvement (60 Elective A)	PMV Training
BSBWOR502B	Ensure team effectiveness (60 Elective A)	PMV Training
UEENEEC002B	Source and purchase material/parts for installation or service jobs (20 Elective A)	PMV Training
UEENEEC003B	Provide quotations for installation or service jobs (20 Elective A)	PMV Training
UEENEEC010B	Deliver a service to customers (20 Elective A)	PMV Training
UEENEEI150A ♦^	Develop, enter and verify discrete control programs for programmable controllers (60 CT Group B)	PMV Training
UEENEEI151A ♦^	Develop, enter and verify word and analogue control programs for programmable logic controllers. (60 CT Group C)	PMV Training

Qualification Elective Units (Minimum 220 points of 720 electives points to be selected from Elective E and restriction applies on maximum numbers from Electives A, B, C and D) Delivery Method

UEENEEI152A*	Develop, enter and verify programs in Supervisory Control and Data Acquisition systems (60 Group C)	PMV Training
UEENECC006B	Prepare tender submissions for electrotechnology projects (60 Group D)	PMV Training
UEENEEG131A	Evaluate performance of low voltage electrical apparatus (40 CT Group D)	PMV Training
UEENEEI157A*^	or Configure and maintain industrial control system networks (60 Group D)	PMV Training
UEENECC007B	Manage contract variations (40 Group E)	PMV Training
UEENEEE078B	Contribute to risk management in electrotechnology systems (20 Group E)	PMV Training
UEENEEI153A*	Design and configure Human-Machine Interface (HMI) networks (60 Group E)	PMV Training
UEENEEI154A*	Design and use advanced programming tools PC networks and HMI Interfacing (120 Group E)	PMV Training
UEENEEM052A	Classify hazardous areas — gas atmospheres (40 Group E)	PMV Training
UEENEEM053A	Classify hazardous areas — dust atmospheres (40 Group E)	PMV Training
UEENEEM057A*	Design explosion-protected electrical systems and installations — gas atmospheres (20 Group E)	PMV Training
UEENEEM058A*	Design explosion-protected electrical systems and installations — dust atmospheres (20 Group E)	PMV Training
UEENEEM059A*	Design explosion-protected electrical systems and installations — pressurisation (20 Group E)	PMV Training
UEENEEM075A*	Design explosion-protected electrical systems — Coal mining (20 Group E)	PMV Training
UEENEEM079A*	Design of gas detection systems (20 Group E)	PMV Training

**WorkReady South Australia Funding is available from the Government of South Australia in Adelaide and SA Region for eligible participants only.

Course cost is \$10,000**

Contact the office for further details.



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Training and Assessment delivered
by Project Management Vision, RTO 51178

(Enrolment through PMV only. PEER accept no responsibility for content, delivery or assessment of this course.)



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