ELECTRICAL TRADES COLLEGE - RTO 45347

Certificate III in Electrotechnology Electrician

UEE30820 | Apprenticeship Pathway | NSW Fee-Free

48 Months (4 Years)	Day Release	NSW Fee-Free	Licence Ready
Nominal Electrical Apprenticeship duration	1 day per week following NSW School Term Dates	Fully subsidised by NSW Government	Unrestricted Electrical License

Welcome to Electrical Trades College

Electrical Trades College (ETC) is a nationally registered training organisation (RTO) dedicated to developing the next generation of skilled electricians. We combine industry-experienced trainers, hands-on practical facilities, and a blended delivery model to ensure our apprentices are job-ready from day one.

Electrical work is one of Australia's most in-demand trades — evolving rapidly with advances in renewable energy, smart technology, and industrial automation. A career as an electrician offers long-term stability, strong earning potential, and the opportunity to specialise in high-growth areas such as solar, battery storage, and communications cabling.

Qualification Overview

Qualification: Certificate III in Electrotechnology Electrician
National Code: UEE30820
Delivery Mode: Blended (online theory + face-to-face classroom + simulated worksite + workplace training)
Duration: 48 months (4 years) — standard full-time apprenticeship pathway
Class Days: Day release — 1 day per week, 8:00 am – 5:00 pm, during NSW School Terms
Fees: Fee-Free — fully subsidised by the NSW Government under Smart and Skilled

This qualification provides the skills and knowledge to select, install, set up, test, fault-find, repair, and maintain electrical systems and equipment in buildings and premises. It meets the Essential Performance Capabilities for an Unrestricted Electrician's Licence as defined by the Electrical Regulatory Authority Council (ERAC).

Note: This qualification supersedes UEE30811 Certificate III in Electrotechnology Electrician (no longer equivalent). To obtain an Unrestricted Electrician's Licence in most Australian jurisdictions — including NSW — this qualification must be completed via an apprenticeship or a Trades Recognition Australia (TRA) pathway.

What You Will Learn

Our program covers both the technical theory and the hands-on skills required to work safely and confidently as a qualified electrician. Training areas include:

- ✓ Safe work practices, WHS legislation, and risk control measures
- ✓ CPR, low voltage rescue, and lock-out / tag-out procedures
- ✓ Reading and interpreting plans, diagrams, drawings, and Australian Standards
- ✓ Electrical theory: magnetism, electromagnetism, inductors, DC machines, and AC circuits
- ✓ Installation, termination, and testing of low voltage wiring, switchgear, and appliances
- ✓ Design and wiring of switchboards
- ✓ Fault finding and troubleshooting of electrical circuits and equipment
- ✓ PLCs, contactors, relays, and control devices
- ✓ Maximum demand, current-carrying capacity, and voltage drop calculations
- ✓ Renewable energy systems (solar PV and battery storage — elective pathways)

Why Choose Electrical Trades College?

- ✓ **Industry-Experienced Trainers**
  Our trainers bring real-world electrical industry experience into every lesson. You learn from practitioners who have worked in the field, not just the classroom.
- ✓ **Hands-On Practical Facilities**
  ETC operates a purpose-built simulated worksite where you practise wiring, fault-finding, and installation in a controlled, safe environment — preparing you for the demands of the job from day one.
- ✓ **Current and Relevant Curriculum**
  Our training programs are aligned with the latest training package requirements and industry standards, including emerging areas such as solar, battery storage, and communications cabling.
- ✓ **Industry Connections**
  ETC has established relationships with leading electrical contractors and industry partners across NSW, supporting our apprentices in building professional networks throughout their training.
- ✓ **Licence-Ready Graduates**
  Graduates complete the qualification equipped to apply for an Unrestricted Electrician's Licence with Fair Trading NSW, setting them on a clear pathway to independent practice.

Career Outcomes and Pathways

Completion of UEE30820 opens employment opportunities across a broad range of sectors:

- ✓ Electrical contractors (residential, commercial, and industrial)
- ✓ Commercial building maintenance
- ✓ Industrial facilities and manufacturing
- ✓ Renewable energy (solar PV, battery storage, and energy management)
- ✓ Global opportunities — Australia's electrician qualification is recognised internationally

Graduates seeking to advance their career can progress to:

- ✓ UEE40611 Certificate IV in Electrotechnology — Systems Electrician
- ✓ Specialist elective skill sets in solar, battery storage, and data/communications cabling
- ✓ Supervisory, project management, or business ownership pathways

Entry Requirements

To enrol in this program, you must meet the following requirements:

- ✓ Be employed as an electrical apprentice with a signed Training Contract lodged with an Apprenticeship Connect Australia Provider (ACAP)
- ✓ Have access to a computer and reliable internet connection
- ✓ Be able to operate a computer and an online Learning Management System (LMS) — support is available
- ✓ Hold a practical, applied level of English literacy and numeracy suitable for online theory study

Recognition of Prior Learning (RPL) and Credit Transfer
If you have previous relevant experience or formal qualifications, you may be eligible to apply for Recognition of Prior Learning (RPL) or Credit Transfer. Speak with our Training Manager to discuss your options before enrolment.

Course Units

This qualification consists of 27 core units plus elective units to a minimum of 120 elective weighting points.

Core Units

Unit Code	Unit Name
UEECO0023	Participate in electrical work and competency development activities
UEECD0007	Apply work health and safety regulations, codes and practices in the workplace
HLTAID009	Provide cardiopulmonary resuscitation
UEERE0001	Apply environmentally and sustainable procedures in the energy sector
UEECD0019	Fabricate, assemble and dismantle utilities industry components
UEECD0020	Fix and secure electrotechnology equipment
UEECD0051	Use drawings, diagrams, schedules, standards, codes and specifications
UEECD0046	Solve problems in single path circuits
UEECD0044	Solve problems in multiple path circuits
UEEEL0021	Solve problems in magnetic and electromagnetic devices
UEEEL0023	Terminate cables, cords and accessories for low voltage circuits
UEEEL0019	Solve problems in direct current (d.c.) machines
UEEEL0020	Solve problems in low voltage a.c. circuits
UEEEL0025	Test and connect transformers
UEEEL0008	Evaluate and modify low voltage heating equipment and controls
UEEEL0009	Evaluate and modify low voltage lighting circuits, equipment and controls
UEEEL0010	Evaluate and modify low voltage socket outlet circuits
UEEEL0024	Test and connect alternating current (a.c.) rotating machines
UEEEL0018	Select wiring systems and cables for low voltage electrical installations
UEEEL0003	Arrange circuits, control and protection for electrical installations
UEECD0016	Document and apply measures to control WHS risks associated with electrotechnology work
UEEEL0005	Develop and connect electrical control circuits
UEEEL0014	Isolate, test and troubleshoot low voltage electrical circuits
UEEEL0012	Install low voltage wiring, appliances, switchgear and associated accessories
UEEEL0047	Identify, shut down and restart systems with alternate supplies
UETDRRF004	Perform rescue from a live LV panel
UEEEL0039	Design, install and verify compliance and functionality of general electrical installations (Capstone)

Elective Units (minimum 120 weighting points)

Select from the following elective skill sets and units to complete your elective requirements:

Solar Design & Install Skills Set — additional charges apply	
Unit Code	**Unit Name (Weighting Points)**
UEERE0054	Conduct site survey for grid-connected photovoltaic and battery storage systems (30 pts)
UEERE0080	Install photovoltaic power conversion equipment to grid (30 pts)
UEERE0081	Install photovoltaic systems to power conversion equipment (30 pts)
UEERE0061	Design grid-connected photovoltaic systems to power conversion equipment (40 pts)
Battery Design & Install Skills Set — additional charges apply	
UEERE0060	Design grid-connected battery storage systems (60 pts)
UEERE0077	Install battery storage equipment power conversion equipment to grid (30 pts)
UEERE0078	Install battery storage to power conversion equipment (30 pts)
Communications Skills Set	
UEEDV0005	Install and maintain cabling for multiple access to telecommunication services (80 pts)
UEEDV0008	Install, modify and verify coaxial and structured communication copper cabling (40 pts)
General Elective	
UEEAS0007	Assemble, mount and connect control gear and switchgear (40 pts)

Please contact ETC to discuss elective unit selection and any additional fees that apply to optional skills sets.

Fees and Funding

This training is Fee-Free and fully subsidised by the NSW Government.

ETC delivers UEE30820 under the Smart and Skilled program. Eligible apprentices pay no tuition fees for core unit training. Additional charges apply to optional skill sets (Solar, Battery, Communications).

To verify your eligibility and find out more, visit the NSW Fee-Free website below and search for course ID: UEE30820 under ‘Electricity, gas, water and waste services’.

https://skills.education.nsw.gov.au/nsw-fee-free

How to Enrol

New Apprentice (not yet registered)

Follow these steps to begin your electrical apprenticeship with ETC:

1

Secure Employment

You must be employed by an electrical contractor as a prospective apprentice before you can register.

2

Register with an Apprenticeship Connect Australia Provider (ACAP)

Your ACAP will work with you and your employer to select the appropriate qualification, prepare a Training Plan Proposal (TPP), and arrange your Training Contract. To find your local ACAP, visit www.australianapprenticeships.gov.au or contact one of the following:

- **Apprenticeship Support Australia** — 1300 363 831
- **BUSY at Work** — 12 38 79
- **MAS National** — 1300 627 628
- **MEGT** — 13 63 48

3

Training Plan Proposal Submitted to ETC

Your ACAP will submit the TPP to ETC on your behalf. Once accepted, ETC will lodge the required documentation with Training Services NSW for approval.

4

Finalise Your Enrolment

Once your TPP is approved by Training Services NSW, ETC will contact you to complete your enrolment and confirm your class start date.

Already Registered with Another RTO?

If you are an existing registered apprentice wishing to transfer your training to ETC, please follow these steps:

1

Submit Your Training Contract and Academic Transcripts

Email your current Training Contract and academic transcripts to our Training Manager at sam@electricalcollege.edu.au so ETC can assess whether we can accommodate you in our program.

2

Complete a Variation to Training Form (VT2)

If ETC confirms acceptance, you will need to complete a VT2 Form (Application to Vary an Apprenticeship) through Training Services NSW.

Contact Us

(02) 9773 6029

admin@electricalcollege.edu.au

www.electricalcollege.edu.au

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