

22499VIC Certificate II in Electrotechnology Studies (Pre-vocational)



Course Information Brochure

Description of Course

This pre-vocational course prepares students to gain an apprenticeship or other employment in the electrotechnology industry. It covers the fundamentals of electrical, telecommunication, refrigeration and air conditioning systems as well as workshop experience in fabrication and assembly techniques, wiring, cabling, basic installation skills and use of test equipment. Workplace safety and first aid training are also included. It provides an overview of the industry, employment opportunities and training pathways.

The training is mainly project based and gives industry relevant hands-on experience in a realistic simulated environment. The course gives you the basic skills to make you job ready. You will get experience with the basic hand and power tools and equipment an electrician/technician uses. You will learn how to read circuit diagrams, take electrical measurements and perform electrical calculations.

Activities/task

The theoretical and practical training is linked directly to the work electrotechnology related technicians undertake. The course includes:

- Basic electrical/electronic theory
- Renewable energy concepts and projects (Solar and Wind)
- Electrical motor theory and practice (Motor control)
- Data and network cabling
- Testing instruments
- Air-conditioning basics

Assessment

Assessment is conducted using a combination of project based practical tasks, theory tests and job briefs. Student competence will be judged by a qualified assessor using all of these tasks. Students are given a fair and adequate assessment process with multiple opportunities to demonstrate competency.

Eligibility and prerequisites

It is recommended students have a minimum sound achievement of Year 10 Maths and English or equivalent and an aptitude for practical work. If you have any individual needs please contact us to discuss these.

First Year

Core

CPCCWHS1001	Prepare to work safely in the construction industry
UEENEEE101A	Apply occupational health and safety regulations, codes and practices in the workplace
UEENEEE102A	Fabricate, assemble and dismantle utilities industry components
UEENEEE103A	Solve problems in ELV single path circuits
UEENEEE105A	Fix and secure electrotechnology equipment
VU22670	Provide an overview of the electrotechnology industry
VU22671	Use test instruments in the electrotechnology industry
VU22673	Carry out basic network cabling for extra low voltage (ELV) equipment and devices

Elective

UEENEEP024A	Attach cords and plugs to electrical equipment for connection to a single phase 230 volt supply
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Second Year

Core

HLTAID003	Provide first aid (delivered by an external RTO at the college)
VU22333	Perform intermediate engineering computations
UEENEEJ104A	Establish the basic operating conditions of air conditioning system
VU21544	Install a sustainable extra low voltage energy power system
VU22672	Carry out basic electrotechnology project
Elective	
UEENEEE141A	Use of routine equipment plant technologies in an energy sector environment

Students must be deemed competent in all of the units of competency listed in order to gain the certificate.

Benefits of this training

This course, provides an advantage for those wanting to gain apprenticeships courses. As it can be difficult to gain apprenticeships without experience. The skills and knowledge you will develop in the course can give you an advantage and impress potential employers.

Completing the program may provide exemptions from units studied in the first year of an apprenticeship. Pre-apprenticeships can actually reduce the study workload in subsequent years if the units of competency gained are included of another qualification.

Pathways

The electrotechnology industry is a fast developing and highly technical industry. It is changing and growing at a rapid rate as technology advances in fields such as data communication, home automation, intelligent systems for industrial and facilities management and renewable/sustainable energy systems

The most common pathway out of this course is to the Certificate III in *Electrotechnology Electrician*. There are Certificate IIIs in *Electrical Machine Repair* and *Electronic and Communications*. There is a huge range of specialisations at Certificate IV level including systems electrician, instrumentation, air conditioning split systems, data and voice communications, rail signalling, rail communications and network systems, lift systems, renewable energy, fire protection control systems. See the Diploma and Advanced Diplomas available at training.gov.au and search *electrotechnology* in the training components search.

Course Fees

All training resources are provided when classes commence. NCAT students please see the Payment Form – Material Charges.

For safety reasons there is a NCAT electrotechnology uniform which is not included in the materials cost. Parents will receive a letter outlining specific details of the uniform and the supplier.

Length of the Course

This course runs for one year for internal NCAT Pre-apprenticeship students.

Enrolment Process

Students enrolling as full time students need to phone the college on Tel 9478 1333 for an interview. External students must complete two forms. An internal “*Application Form*” given by the home school for approval at the home school level. The second form is an RTO “*VET Enrolment Form*”. Our NCAT enrolment form is available through the home school VET coordinator or online on NCAT <https://ncat.vic.edu.au/> or the Northern Melbourne VET Cluster website <https://nmvc.vic.edu.au/>

Please note

For details regarding Access, Equity, Privacy Policy, Refunds Policy, Student Conduct, Recognition Processes, Access to Records, Complaints & Appeals Policy etc. please see the VET Student Handbook available on the NCAT website.

RTO Number 6736

(Course Description for NCAT Pre- apprenticeship Students)