VCE VET Electrical Industry

Program Booklet

Incorporating

22499VIC Certificate II in Electrotechnology (Pre-vocational) (Version 1)

UEE22011 Certificate II in Electrotechnology (Career Start) (Release 4)

January 2021

This program was first implemented in January 2015

Modification history

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Status | Release Date | Comments |
| 2.0 | Current | January 2021 | Updated to include redeveloped state accredited program 22499VIC Certificate II In Electrotechnology (Pre-vocational) (Version 1) |
| 1.0 | Superseded | January 2019 | Moved to a Program Booklet. SWL information updated |

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Introduction

VCE VET programs are vocational training programs approved by the Victorian Curriculum and Assessment Authority (VCAA). VCE VET programs lead to nationally recognised qualifications, thereby offering students the opportunity to gain both the VCE and a nationally portable vocational education and training (VET) certificate. VCE VET programs:

* are fully recognised within the Units 1 to 4 structure of the Victorian Certificate of Education (VCE) and therefore may contribute towards satisfactory completion of the VCE. VCE VET units have equal status with other VCE studies
* may contribute to the satisfactory completion of the Victorian Certificate of Applied Learning (VCAL)
* function within the National Training Framework.

Program development

This iteration of the VCE VET Electrical Industry program was implemented in 2015. It must be used in conjunction with the Victorian accredited curriculum, 22499VIC Certificate II in Electrotechnology (Pre-vocational) (Version 1), and the UEE11 Electrotechnology Training Package (Release 1.5) qualification UEE22011 Certificate II in Electrotechnology (Career Start) (Release 4). This program replaces the VCE VET Electrical Industry program published in January 2019 and all subsequent program summaries. This revision to the VCE VET Electrical Industry program is a consequence of the reaccreditation of the Victorian accredited curriculum 22499VIC Certificate II in Electrotechnology (Pre-vocational).

The VCE VET Electrical Industry program provides students with the knowledge and skills to enhance their employment prospects across a range of electrical sectors, including electrical, electronics, refrigeration and mechanical engineering.

Program information

This program booklet must be read in conjunction with the *VCE VET Program Guide*, Victorian accredited curriculum and nationally endorsed training packages.

Transition arrangements

Students commencing in 2020 and beyond

All students commencing a VCE VET Electrical Industry program from January 2020 and beyond must comply with the requirements outlined in this booklet. Enrolments may be in either 22499VIC Certificate II in Electrotechnology (pre-vocational) or UEE22011 Certificate II in Electrotechnology (Career Start). Students must maintain their enrolment in one program for a minimum of 360 nominal hours to be eligible for a Units 3 and 4 sequence.

Industry overview

Accredited course

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. There are many sub sectors which make up the electrotechnology industry. These include: electrical (residential, commercial and industrial), electricity supply (generation, transmission and distribution), electronics, communications, computer systems, information/data technology, instrumentation, lifts, air-conditioning and refrigeration, renewable energy, fire and security, photovoltaic systems, gaming, rail and rail signals, and switchboard manufacturing.

The course provides an overview of the industry, employment opportunities and the training pathways available. It also includes training in the basic 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.

The VCE VET Electrical Industry Program allows for credit in the VCE and VCAL, and a nationally recognised qualification. This qualification is an endorsed accredited curriculum which can be found at: <[www.education.vic.gov.au/Documents/training/providers/rto/curr22499vicelectrotechnology.pdf](https://www.education.vic.gov.au/Documents/training/providers/rto/curr22499vicelectrotechnology.pdf)>.

Training package

The UEE11 Electrotechnology Training Package covers occupations across the following sectors: computer systems, data and voice communications, electrical, electronic, instrument and industrial control, rail signalling, refrigeration and air conditioning, renewable and sustainable energy. There are entry points at Certificate II that have pre-vocational outcomes suitable for entry into Australian Apprenticeships. Stakeholders strongly support achievement of full trade qualifications to help meet ongoing industry skill shortages.

This qualification is drawn from the UEE11 Electrotechnology Training Package (Release 1.5) which can be found at: <[training.gov.au/Training/Details/UEE11](https://training.gov.au/Training/Details/UEE11)>.

Qualifications / packaging rules

22499VIC Certificate II in Electrotechnology (Pre-vocational) (Version 1)

Students must achieve a minimum of fifteen units of competency to gain 22499VIC Certificate II in Electrotechnology (Pre-vocational), including:

* thirteen core units of competency
* a minimum of two elective units of competency.

For further information, visit: <[www.education.vic.gov.au/Documents/training/providers/rto/curr22499vicelectrotechnology.pdf](https://www.education.vic.gov.au/Documents/training/providers/rto/curr22499vicelectrotechnology.pdf)>.

UEE22011 Certificate II in Electrotechnology (Career Start) (Release 4)

Students must achieve the following requirements to gain UEE22011 Certificate II in Electrotechnology (Career Start), including:

* six core units of competency
* elective units of competency achieving a total of weighting of 140 points from Group A and B, of which:
* a maximum of 60 points may be selected from Group A
* a minimum of 80 points and a maximum of 140 points may be selected from Group B

For further information on selecting electives and weighting points, visit: <[training.gov.au/Training/Details/UEE22011](https://training.gov.au/Training/Details/UEE22011)>.

VCE VET Program details

Aims

The VCE VET Electrical Industry program aims to:

* provide participants with the knowledge, skills, and competency that will enhance their training and employment prospects across a range of electrical sectors, including electrical, electronics, refrigeration and mechanical engineering
* enable participants to gain a recognised credential and to make an informed choice of vocation or career path.

Program structure

The VCE VET Electrical Industry program comprises two certificates II with VCE VET credit at Units 1 to 4 level. Certificates II are typically completed over two years.

The identified units of competency in the VCE VET Electrical Industry program have been selected for recognition purposes and may vary from the qualification packaging rules.

VCE VET Credit

Students undertaking the VCE VET Electrical Industry program are eligible for up to six VCE VET units on their VCE or VCAL statement of results:

* four VCE VET Units at Units 1 and 2 level
* a VCE VET Units 3 and 4 sequence.

VCE VET credit will accrue in the following order: Units 1, 2, 3, 4, 1, and 2. These units of credit may be accumulated over more than one year.

Nominal hour duration

Nominal hours represent the supervised structured learning and assessment activities required to sufficiently address the content of each unit of competency.

Nominal hours are used to determine credit into the VCE or VCAL for VET units of competency.

Duplication

When a VCE VET program significantly duplicates other VCE studies or VET training in a student’s program, a reduced VCE VET unit entitlement may apply. Credit towards the VCAL may also be reduced due to duplication.

No significant duplication has been identified between the VCE VET Electrical Industry program and other VCE studies.

Dual Enrolments

Where students undertake multiple qualifications within the VCE VET Electrical Industry program, care must be taken to ensure students enroll in all the units of competency only once. Credit for a unit of competency can only be counted once towards the VCE or VCAL.

There are a number of units of competency that are common to 22499VIC Certificate II in Electrotechnology (pre-vocational) and UEE22011 Certificate II in Electrotechnology (Career Start). For VCE or VCAL recognition purposes these two qualifications are regarded as equivalent. Where both programs are undertaken, students are eligible for up to six VCE VET units on their VCE or VCAL statement of results.

Sequence

Certain units of competency will complement each other, lending to coordinated delivery that minimises content overlap. Units of competency have guidelines on the different situations and delivery contexts, and a range of delivery sequences are possible.

The intention of VCE VET programs is to provide students with a qualification that meets industry expectations. The strong advice and assumption of industry bodies is that the quality of the qualification is compromised when foundation training is neglected.

The sequencing of units of competency is determined by the registered training organisation, teacher or trainer; however, it is anticipated that a number of the core units of competency will be undertaken in the first year of the program.

The following considerations should be used in determining the sequence of a student’s VCE VET Electrical Industry program:

* *UEENEEE101A Apply occupational health and safety regulations, codes and practices in the workplace* is a prerequisite for the majority of units of competency in 22499VIC Certificate II in Electrotechnology (pre-vocational) and UEE22011 Certificate II in Electrotechnology (Career Start).
* *CPCCOHS1001A Work safely in the construction industry* is recognised by the Victorian WorkCover Authority as proof of completion of a general occupational health and safety induction training for the construction industry and must be undertaken prior to Structured Workplace Learning. It is a requirement for students to be issued with the Construction Induction (CI) Card, for entry to a construction work site.

VCE VET Electrical Industry program structure

22499VIC Certificate II in Electrotechnology (Pre-vocational) (Version 1)

|  |  |  |
| --- | --- | --- |
| Code | Unit Title | Nominal Hours |
| **Units 1 to 4** |
| **Compulsory units:** |
| CPCCOHS1001A | Work safely in the construction industry | 6 |
| HLTAID003 | Provide first aid | 18 |
| UEENEEE101A | Apply occupational health and safety regulations, codes and practices in the workplace | 20 |
| UEENEEE102A\* | Fabricate, assemble and dismantle utilities industry components | 40 |
| UEENEEE103A\* | Solve problems in ELV single path circuits | 40 |
| UEENEEE105A\* | Fix and secure electrotechnology equipment | 20 |
| UEENEEJ104A\* | Establish the basic operating conditions of air conditioning systems | 20 |
| VU21544 | Install a sustainable extra low voltage energy power system | 30 |
| VU22333 | Perform intermediate engineering computations | 40 |
| VU22670 | Provide an overview of the electrotechnology industry | 30 |
| VU22671 | Use test instruments in the electrotechnology industry | 20 |
| VU22672 | Carry out basic electrotechnology project | 40 |
| VU22673 | Carry out basic network cabling for extra low voltage (ELV) equipment and devices | 30 |
| **Subtotal:** | **354** |
| **Elective units:** Select a minimum of **two** electives. |
| **Elective Group A:** |
| UEENEEE141A\* | Use of routine equipment plant technologies in an energy sector environment | 60 |
| UEENEEJ102A | Prepare and connect refrigeration tubing and fittings | 40 |
| UEENEEJ103A | Establish the basic operating conditions of vapour compression systems | 60 |
| UEENEEK112A | Provide basic sustainable energy solutions for energy reduction in residential premises | 40 |
| UEENEEP024A | Attach cords and plugs to electrical equipment for connection to a single phase 230 volt supply | 20 |
| UEENEEP026A | Conduct in-service safety testing of electrical cord connected equipment and cord assemblies | 20 |
| VU22330 | Select and interpret drawings and prepare three dimensional (3D) sketches and drawing | 20 |
| VU22338 | Configure and program a basic robotic system | 60 |
| VU22340 | Use 3D printing to create products | 40 |
| VU22341 | Apply basic computer networking concepts and practices | 40 |
| VU22669 | Perform energy sector installations of extra low voltage (ELV) sing path circuits | 40 |
| VU22674 | Explore applications and operation of the Internet of Things (IoT) | 20 |
| **Minimum for Units 1 to 4:** | **360** |

Notes

\* An asterisk (\*) against a unit code indicates that there is a prerequisite requirement that must be met. Prerequisite unit(s) must be assessed before assessment of any unit of competency with an asterisk. Check the unit of competency for information on specific prerequisite requirements <[training.gov.au/Home/Tga](https://training.gov.au/Home/Tga)> and <[www.education.vic.gov.au/Documents/training/providers/rto/curr22499vicelectrotechnology.pdf](https://www.education.vic.gov.au/Documents/training/providers/rto/curr22499vicelectrotechnology.pdf)>.

UEE22011 Certificate II in Electrotechnology (Career Start) (Release 4)

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Unit Title | Weighting points | Nominal Hours |
| **Units 1 to 4** |
| **Compulsory units:** |
| UEENEEE101A | Apply occupational health and safety regulations, codes and practices in the workplace  | 20 | 20 |
| UEENEEE104A\* | Solve problems in d.c. circuits | 80 | 80 |
| UEENEEE141A\* | Use of routine equipment/plant/technologies in an energy sector environment | 40 | 60 |
| UEENEEE148A\* | Carry out routine work activities in an energy sector environment  | 40 | 40 |
| UEENEEE179A\* | Identify and select components, accessories and materials for energy sector work activities  | 20 | 20 |
| UEENEEK142A | Apply environmentally and sustainable procedures in the energy sector | 20 | 20 |
| **Subtotal:** | **220** | **240** |
| **Elective units:** Select electives with a minimum of **140 weighting points**. |
| • a maximum of 60 points may be selected from Group A• a minimum of 80 points and a maximum of 140 points may be selected from Group BFor further information on selecting electives and weighting points, visit <[training.gov.au/Training/Details/UEE22011](https://training.gov.au/Training/Details/UEE22011)>. |
| **Elective Group A:** |
| CPCCOHS1001A\* | Work safely in the construction industry | 10 | 6 |
| HLTAID001\* | Provide cardiopulmonary resuscitation | 10 | 4 |
| UEENEEC001B | Maintain documentation | 20 | 20 |
| UEENEEC010B | Deliver a service to customers | 20 | 20 |
| UEENEEE020B | Provide basic instruction in the use of electrotechnology apparatus | 20 | 20 |
| **Elective Group B:** |
| UEENEEA101A\* | Assemble electronic components | 40 | 40 |
| UEENEEA102A\* | Select electronic components for assembly | 20 | 20 |
| UEENEED101A\* | Use computer applications relevant to a workplace | 20 | 20 |
| UEENEEE102A\* | Fabricate, assemble and dismantle utilities industry components | 40 | 40 |
| UEENEEE105A\* | Fix and secure electrotechnology equipment | 20 | 20 |
| UEENEEE107A | Use drawings, diagrams, schedules, standards, codes and specifications | 40 | 40 |
| UEENEEE122A\* | Carry out preparatory energy sector work activities  | 60 | 60 |
| UEENEEE130A | Provide solutions and report on routine electrotechnology problems | 60 | 60 |
| UEENEEE142A\* | Produce products for carrying out energy sector work activities | 40 | 80 |
| UEENEEE143A\* | Produce routine tools/devices for carrying out energy sector work activities | 40 | 120 |
| UEENEEH101A\* | Repair basic computer equipment faults by replacement of module sub-assemblies | 40 | 40 |
| UEENEEH102A\* | Repairs basic electronic apparatus faults by replacement of components  | 40 | 40 |
| UEENEEJ103A\* | Establish the basic operating conditions of vapour compression systems | 60 | 60 |
| UEENEEP024A\* | Attach cords and plugs to electrical equipment for connection to a single phase 230 volt supply  | 20 | 20 |
| UEENEEP026A\* | Conduct in-service safety testing of electrical cord connected equipment and cord assemblies | 20 | 20 |
| **Minimum for Units 1 to 4:** | **360** |

Notes

Nominal hours and weighting points may differ. For the award of the certificate it is essential that the points requirement is met.

\* An asterisk (\*) against a unit code indicates that there is a prerequisite requirement that must be met. Prerequisite unit(s) must be assessed before assessment of any unit of competency with an asterisk. Check the unit of competency for information on specific prerequisite requirements <[training.gov.au/Home/Tga](https://training.gov.au/Home/Tga)>.

ATAR Contribution

The VCE VET Electrical Industry program does not offer scored assessment. A student who achieves a Units 3 and 4 sequence may be eligible for an increment towards their ATAR.

The increment is awarded by the Victorian Tertiary Admissions Centre (VTAC). Further information can be found on the VTAC website:

* the ATAR explained: <[www.vtac.edu.au/results-offers/atar-explained/](https://www.vtac.edu.au/results-offers/atar-explained/)>
* calculating your aggregate: <[www.vtac.edu.au/atar-scaling-guide-2022.html#item-3](https://www.vtac.edu.au/atar-scaling-guide-2022.html#item-3)>
* study groupings: <[www.vtac.edu.au/atar-scaling-guide-2022.html#item-4](https://www.vtac.edu.au/atar-scaling-guide-2022.html#item-4)>.

Increments for a VCE VET Program Non-Scored Units 3 and 4 sequence will be calculated using 10% of the fourth study score of the primary four.

Structured workplace learning

The VCAA has determined that Structured Workplace Learning (SWL) is an appropriate and valuable component of all VCE VET programs. SWL involves on-the-job training in which students are required to master a designated set of skills and competencies related to VCE VET programs.

SWL complements the training undertaken at the school/RTO. It provides the context for:

* enhancement of skills development
* practical application of industry knowledge
* assessment of units of competency, as determined by the RTO
* increased employment opportunities.

The VCAA strongly recommends that students undertake a minimum of 80 hours of SWL for the VCE VET Electrical Industry program. SWL should be spread across the duration of the training program.

The VCAA mandates SWL under the following situations:

* where a period of work placement is mandated for the award of the qualification, or
* where the Assessment Conditions from a Unit of Competency contains a statement regarding the requirement to demonstrate skills in a workplace.

Check the unit of competency for information on Assessment Conditions: <[training.gov.au/Home/Tga](https://training.gov.au/Home/Tga)>.

Further details regarding SWL, the SWL Portal and the Department of Education and Training SWL Manual is available on online: [<www.education.vic.gov.au/school/teachers/teachingresources/careers/work/Pages/structuredlearning.aspx](http://www.education.vic.gov.au/school/teachers/teachingresources/careers/work/Pages/structuredlearning.aspx)>.

The SWL Manual outlines roles and responsibilities of the student, parent, employer and principal; procedures and guidelines for placing students in the workplace; and relevant policy and legislation. The manual also has a link to Ministerial Order 55 and the SWL Arrangement form.

Construction Induction (CI) Card

Students must complete *CPCCOHS1001A Work safely in the construction industry* prior to visiting or commencing training or assessment in the workplace. This will meet the requirements for being issued the Construction Induction (CI) Card. This card is issued by Worksafe Victoria and must be obtained prior to commencing work on a building site either as an employee or as a work placement student. Where SWL opportunities are limited, schools are advised to organise industry visits. A range of industry settings may provide a useful and appropriate context for industry familiarisation.

SWL Recognition

Structured Workplace Learning (SWL) recognition involves the development and maintenance of the Workplace Learning Record (WLR) by the student. The work placement must be in an industry area aligned to the VET certificate drawn from the VCE VET Electrical Industry program. The completion of the WLR is a requirement for recognition by the VCAA for VCE and VCAL credit.

The VCE VET Electrical Industry program offers SWL recognition. Further details are available at: <[www.vcaa.vic.edu.au/curriculum/vet/swl-vet/Pages/SWL-recognition.aspx](https://www.vcaa.vic.edu.au/curriculum/vet/swl-vet/Pages/SWL-recognition.aspx)>.

Work health and safety

Schools/RTOs must ensure that Work Health and Safety (WHS) issues are fully addressed in the training program.

The principal is responsible for ensuring the school meets its responsibilities for students in SWL arrangements.

Where the student will be employed under an SWL arrangement, the principal must be satisfied that the student is undertaking training in the WHS unit of competency before the arrangement can be entered into.

Students must be informed of the significance of work-related hazards. They must understand the need for, and the nature of, workplace risk controls such as safe working procedures and the use of personal protective clothing and equipment.

Schools must also be satisfied, through their review of the acknowledgment provided by employers on the SWL Arrangement form, that the workplace in question and the activities proposed will not expose a student to risk during their structured work placement.

Employers must view their duty of care towards students as essentially no different from that owed to their employees. They must understand that students cannot be expected to possess the judgment or maturity to undertake any task that presents potential risk. This means that no student may be exposed at any time to dangerous plant machinery, equipment, substances, work environments or work practices.

On the first morning of their placement, students should be introduced to their supervisor and provided with a formal induction to the workplace. This will include first aid, emergency and incident reporting arrangements.

The student should be given an orientation tour of the workplace and any excluded areas or activities should be pointed out. Students should be instructed to report without delay anything they feel may be unsafe. They should be encouraged to ask for help or further instruction if they are not sure of the correct way to carry out any task.

Close supervision of students undertaking SWL is essential. Supervisors nominated by the employer must understand all requirements for safely managing the student’s activities. Supervisors must understand that a student may not fully grasp information or instructions the first time they are told. They should encourage students to ask for help if they have forgotten or if they experience difficulty in putting information into practice.

The WorkSafe Victoria website makes available useful resources: <[www.worksafe.vic.gov.au](https://www.worksafe.vic.gov.au/)>.

Additional information

For updates or information relating to this program refer to:

* the VCE VET Electrical Industry program web page: <[www.vcaa.vic.edu.au/curriculum/vet/vce-vet-programs/Pages/electricalindustry.aspx](https://www.vcaa.vic.edu.au/curriculum/vet/vce-vet-programs/Pages/electricalindustry.aspx)>
* the *VCAA* *Bulletin*: <[www.vcaa.vic.edu.au/news-and-events/bulletins-and-updates/bulletin/Pages/index.aspx](https://www.vcaa.vic.edu.au/news-and-events/bulletins-and-updates/bulletin/Pages/index.aspx)>
* the Get VET web page for videos, success stories, flowcharts and posters designed to support teachers in engaging, informing and inspiring students and parents about VET Delivered to Secondary Students: <[www.vcaa.vic.edu.au/getvet](https://www.vcaa.vic.edu.au/getvet)>.

Pathways

The VCE VET Electrical Industry program opens up many different training and employment pathways. The VCAA recommends study at the lower levels to develop industry foundation skills before moving to higher level qualifications.

Generally, qualifications in the UEE Electrotechnology Training Package Release 2.0 are suitable for delivery via an Australian Apprenticeship pathway.

The Australian Apprenticeships website offers information about traineeships and apprenticeships and includes links to State and Territory Training Authorities (STAs) that monitor provision.

VET in Schools programs are packaged and delivered in a variety of ways across Australia. However, it is highly recommended that schools work together in partnership with an RTO where qualifications or Skill Sets result in strong transferable skills relevant to the needs of the individual and commercial enterprises.

The UEE Electrotechnology Training Package qualifications provide pathways in the following disciplines:

* Computer Systems
* Data and Voice Communications
* Electrical
* Electronic
* Instrument and Industrial Control
* Rail Signalling
* Refrigeration and Air Conditioning
* Renewable and Sustainable Energy.

Appendix – Sample programs

22499VIC Certificate II in Electrotechnology (Pre-vocational) (Version 1)

|  |  |  |
| --- | --- | --- |
| Code | Unit Title | Nominal Hours |
| **Units 1 to 4** |
| **Year 1** |
| CPCCOHS1001A | Prepare to work safely in the construction industry  | 6 |
| HLTAID003 | Provide first aid  | 18 |
| UEENEEE101A | Apply occupational health and safety regulations, codes and practices in the workplace  | 20 |
| UEENEEE102A\* | Fabricate, assemble and dismantle utilities industry components  | 40 |
| UEENEEE103A\* | Solve problems in ELV single path circuits | 40 |
| UEENEEE105A\* | Fix and secure electrotechnology equipment | 20 |
| UEENEEP024A\* | Attach cords and plugs to electrical equipment for connection to a single phase 230 volt supply  | 20 |
| VU22670 | Provide an overview of the electrotechnology industry | 30 |
| **Year 2** |
| UEENEEJ104A\* | Establish the basic operating conditions of air conditioning systems | 20 |
| UEENEEP026A | Conduct in-service safety testing of electrical cord connected equipment and cord assemblies | 20 |
| VU21544 | Install a sustainable extra low voltage energy power system | 30 |
| VU22333 | Perform intermediate engineering computations | 40 |
| VU22671 | Use test instruments in the electrotechnology industry | 20 |
| VU22672 | Carry out basic electrotechnology project | 40 |
| VU22673 | Carry out basic network cabling for extra low voltage (ELV) equipment and devices | 30 |
| **Total Sample Program Hours:** | **394** |

UEE22011 Certificate II in Electrotechnology (Career Start) (Release 4)

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Unit Title | Weighting points | Nominal Hours |
| **Units 1 to 4** |
| **Year 1** |
| CPCCOHS1001A\* | Work safely in the construction industry | 10 | 6 |
| HLTAID001\* | Provide cardiopulmonary resuscitation | 10 | 4 |
| UEENEEA101A\* | Assemble electronic components | 40 | 40 |
| UEENEEA102A\* | Select electronic components for assembly | 20 | 20 |
| UEENEEE101A | Apply occupational health and safety regulations, codes and practices in the workplace  | 20 | 20 |
| UEENEEE141A\* | Use of routine equipment/plant/technologies in an energy sector environment | 40 | 60 |
| UEENEEE148A\* | Carry out routine work activities in an energy sector environment  | 40 | 40 |
| UEENEEE179A\* | Identify and select components, accessories and materials for energy sector work activities  | 20 | 20 |
| **Year 2** |
| UEENEEE102A\* | Fabricate, assemble and dismantle utilities industry components | 40 | 40 |
| UEENEEE104A\* | Solve problems in d.c. circuits | 80 | 80 |
| UEENEEH102A\* | Repairs basic electronic apparatus faults by replacement of components  | 40 | 40 |
| UEENEEK142A | Apply environmentally and sustainable procedures in the energy sector | 20 | 20 |
| **Total Sample Program Hours:** | **390** |