UEE20111 (CRICOS code 094823E) Certificate II in Split Air Conditioning and Heat Pump Systems





### Course Description

This qualification covers the installation, commissioning and decommissioning of single head, split air conditioning and heat pumps systems to a prescribed routine where the maximum plant capacity for each system does not exceed 18 kWr.

This includes wall hung, floor and ceiling suspended, cassette and ducted fan coil split systems and water heating heat pump systems. This qualification excludes competencies required for service, repair, maintenance, diagnostic/fault finding and electrical work or the safe and proper installation of commercial refrigeration, air conditioning and heat pump plant and equipment.

The duration of the UEE20111 Certificate II in Split Air-Conditioning and Heat Pump Systems is 20 contact hours per week over 30 weeks.

### Job Roles and Career Pathways

The qualification is designed for students wishing to enter the Electrotechnology industry for roles including Refrigeration and Air Conditioning Trades Assistant and Split Air Conditioning Systems Installer. Full details can be found at <a href="https://www.training.gov.au">www.training.gov.au</a>

### **Entry Requirements**

### Course entry

There are no formal course entry requirements into this qualification. International students must meet visa, financial (fees/relevant costs) and English language proficiency requirements.

### **RTOEntry**

This course is recommended for students who are currently employed in the Electrotechnology industry but without any formal qualifications. Students are required to have a limited knowledge and skill base in a variety of Electrotechnology contexts including making judgements, completing routine activities and taking limited responsibility in the Electrotechnology workplace. Obviously the more you know the better!

Students are required to have language, literacy and numeracy skills as required to undertake these workplace functions.

### Intake

Course start dates are as listed on the RTO training schedule.

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## Further Learning

The UEE20111 Certificate II Split Air Conditioning and Heat Pump Systems can be used minimise the training time required for several specialised courses in the Electrotechnology Industry that will help you to further your career.

Students who complete the UEE20111 Certificate II Split Air Conditioning and Heat Pump Systems can continue their studies by advancing to the UEE32211 Certificate III in Air Conditioning and Refrigeration or any other relevant Certificate III level qualification.

### Course Structure

This course comprises all the required 10 Core competency units to a total of 340 points and one (1) elective unit, totalling 20 points.

The following units of competency will be delivered for this qualification

### Core units

### UEENEEE101A

Apply Occupational Health and Safety regulations, codes and practices in the workplace UEENEEE137A

Document and apply measures to control OHS risks associated with electrotechnology work UEENEEE038B

Participate in development and follow a personal competency development plan

**UEENEEK142A** 

Apply environmentally and sustainable procedures in the energy sector

**UEENEEE107A** 

Use drawings, diagrams, schedules, standards, codes and specifications

**UEENEEE105A** 

Fix and secure electrotechnology equipment

**UEENEEE102A** 

Fabricate, assemble and dismantle utilities industry components

UEENEEJ102A

Prepare and connect refrigerant tubing and fittings

UEENEEJ172A

Recover, pressure test, evacuate, charge and leak test refrigerants - split systems

UEENEEJ105A

Position, assemble and start up single head split air conditioning and water heating heat pump systems

(10 Units - Total 340 points)

### Elective units

Group A electives (a minimum of 0 points and maximum of 20 points)

**UEENEEC010B** 

Deliver a service to customers





# Core Units Syllabus

(10 Units-Total 340 points)

Subject	Outcome (Required Skills & Knowledge)
	Outcome (Required Skins & Knowledge)
UEENEEE101A - Apply Occupational health Safety regulations, codes and practices in the workplace	Understand the basic legal requirements covering occupational health and safety in the workplace
	Understand the work environment
	Understand manual Handling
	Understand chemicals in the workplace
	Understand working at heights
	Understand confined spaces
	Understand physical and psychological hazards
	Understand working safely with electricity
	Understand life support - CPR in the workplace
UEENEEE102A - Fabricate,	Understand mechanical drawing interpretation and sketching
dismantle, assemble of utilities industry components	Understand workshop planning and materials
	Understand measuring and marking out
	Understand holding and cutting
	Understand drills and drilling
	Understand tapping and threading
	Understand general Hand Tools
	Understand joining techniques
	Understand portable electric power tools
	Understand sheet metal work
	Understand low tolerance measurement
	Understand dismantling and assembly techniques
UEENEEE105A - Fix and secure Electrotechnology equipment	Understand device for securing and mounting electrical/electronic/instrumentation/refrigeration/ air-conditioning/telecommunications accessories for supporting, fixing and protecting wiring/cabling/piping and functional accessories to hollow walls Understand device for securing and mounting electrical/electronic/instrumentation/refrigeration/ air-conditioning/telecommunications accessories for supporting, fixing and protecting wiring/cabling/piping and functional accessories to solid walls Understand device for securing and mounting electrical/electronic/instrumentation/refrigeration/ air-conditioning/telecommunications accessories for supporting, fixing and protecting wiring/cabling/piping and functional accessories to metal fixing Understand securing and mounting electrical/electronic/instrumentation/refrigeration/ air-conditioning/telecommunications accessories for supporting, fixing





	and protecting wiring/cabling/piping and functional accessories using	
UEENEEE107A - Use drawings,	fixing adhesives and tapes	
diagrams, schedules, standards,	Understand architectural drawings Understand electrical drawings	
codes and specifications	Understand circuit diagrams	
	Understand wiring diagrams	
	Understand building construction drawings and diagrams	
	Understand regulation for undertaking electrical work	
	Understand standards philosophy and format	
UEENEEE137A - Documents and	Understand purpose, format and content of typical job specifications	
apply measures to control OHS risks	1	
associated with electrical work	construction sites	
	Understand hazards associated with extra-low voltage, low-voltage	
	and high-currents	
	Understand hazards and risks and control measures associated with	
	high-voltage	
	Understand hazards and risks and control measures in working with	
	low voltage equipment	
	Understand hazards and risks and control measures associated with	
	harmful, devices, materials, gases, dusts and airborne contaminant	
	Understand how to determine the degree of the risk	
	Understand use control measures to eliminate or control the risk	
	Understand engaging in monitoring and reviewing processes to	
	ensure control measures remain valid	
UEENEEJ102A - Prepare and connect	Understand piping	
refrigerant tubing and fittings	Understand cutting	
	Understand bending	
	Understand joining	
	Understand soldering and brazing equipment	
	Understand silver solder	
	Soldering techniques	
UEENEEJ105A – Position, assemble and	Understand sustainable energy	
start up single head split air	Understand sustainable energy work practices	
conditioning and water heating heat	Understand heritage awareness	
pump systems	Understand relevant installation codes	
	Understand split air conditioning systems	
	Understand types and applications	
	Understand split water heating heat pump systems	
	Understand installation of unit and pipework	
	Understand system start up	
	Understand de-commission split air conditioning systems	
UEENEEE038B – Participate in	Understand competency Development (Training) Plans	
development and follow a personal	Understand qualification Structure	
competency plan	Understand responsibilities of Parties to the contract	
	Officer stand responsibilities of Parties to the contract	
	Understand industry customs and practices	

# Course Flyer UEE20111 (CRICOS code 094823E) Certificate II in Split Air Conditioning and Heat Pump Systems



	RTO Policies	
	Understand apprentice/Learner Discipline Policy	
	Understand attendance at the Vocational and Technical Education	
	Centre	
	Understand fire and Emergencies at the Vocational and Technical	
	Education Centre	
	Understand occupational Health and Safety at the Vocational and	
	Technical Education Centre	
	Understand entry Requirements	
	Understand vocational and Technical Education Centre Tour	
UEENEEJ172A – Recover, pressure test,	Understand the Residential Air Conditioning and Heat Pump Industry	
evacuate, charge and leak test	and Licensing Requirements	
refrigerants- split systems	Understand heat	
	Understand temperature and Relative Humidity	
	Understand sensible and Latent Heat	
	Understand pressure	
	Understand refrigerant conditions	
	Understand the Vapour Compression Cycle	
	Understand thermometers and relative humidity devices	
	Understand leak Detectors	
	Understand service Gauges	
	Understand properties of Split Heat Pump Refrigerants	
	Understand properties of Split Heat Pump Refrigerant Oils	
	Understand procedures for Working with Refrigerants	
UEENEEK142A – Apply Environmentally	Understand sustainable work practices encompassing	
and sustainable procedures in the	Understand techniques for reducing carbon produced energy and	
energy sector	hence greenhouse gases	

# Elective units (group A) — Syllabus (a minimum of 0 points and maximum 20 points)

Subject	Outcome (Required Skills & Knowledge)
UEENEEC010B - Deliver a service to	Understand enterprise communication methods
customers	Understand work activities records
	Understand problem solving concepts and techniques
	Understand enterprise customer relations protocols
	Understand enterprise quality management system
	Understand instructing users in the use of specific items of
	equipment and systems





### Volume of Learning

The volume of learning allocated to a qualification will vary depending on the level of the qualification and the experience and competency of the student. Students must complete the allocated hours for the qualification they are undertaking in order to achieve competency. If the student applies for RPL or Credit Transfer, the volume of learning may be reduced. The hours that make up the volume of learning for UEE20111 Certificate II in Split Air-Conditioning and Heat Pump Systems are:

Category	Hours
Classroom Based Learning	468
Simulated/Practical Assessments	144
Workplace Learning	0
Total	612

<sup>\*</sup>The total volume of learning for a Certificate II level qualification must be at least 600 hours

## Delivery

The duration for this course in training weeks will take 20 hours per week over 30 weeks.

This will involve a blend of online, classroom based, simulated and supervised workplace based training to ensure full competency.

### Assessment Methods

Assessment is structured throughout the course. If students are unable to achieve competency, additional support is provided through mentoring and access to re-assessment as outlined in our policies and procedures. Assessment requires achievement across all tasks to demonstrate competence and includes:

- Written Assessment
- Portfolio of Evidence including Third party Report
- Simulated/Practical Assessment (demonstration of skills)
- Workplace observation and demonstration

# Recognition of Prior Learning (RPL)

Students with prior learning and work experience can apply for RPL. Students who have completed corresponding units of competency and/or units contained within the packaging rules can apply for Credit Transfer. RPL evidence must include some of the following:

- Work Experience
- Life Experience
- Previous Study e.g. qualifications, industry training
- Professional Development Programs and/or Courses

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### Resources

Students will be provided with the following resource handouts required to complete the UEE20111 Certificate II in Split Air Conditioning and Heat Pump Systems upon enrolment:

 Excerpts of Australian Refrigeration and Air-Conditioning Vol 1 Edition 5 & Vol 2 Edition 5 by Graham Boyle

### Relevant Industry Standards

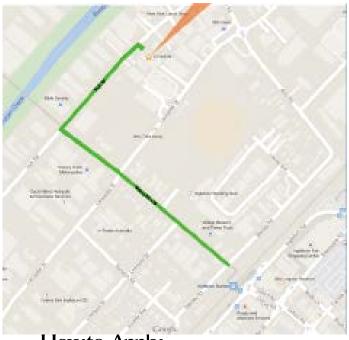
Superior Training Centre's delivery and assessment of the UEE20111 Certificate II in Split Air-Conditioning and Heat Pump Systems complies with the following Australian standards:

AS1668.2

### **Total Course Fees**

\$5,000.00 Deposit (non-refundable) This amount comes out of subsequent course fees. \$12,000.00 Course Fees (Paid by Payment Plan) \$500.00 Resource Fee for all books and resources

### Campus Details and Facilities



How to Apply

Please contact Superior Training Centre by:

**\*\*** +61 2 9618 6809

Superior Training Centre is located at 1/13 York Road, Ingleburn NSW 2565.

The campus at Ingleburn provides quality teaching and learning facilities for students. The training facilities have been set up to run classroom based training sessions, to support the learning and assessment programs we offer.

The campus includes well appointed facilities that offer a comfortable learning environment.

## Library Services

Ingleburn Library is available to students to assist them with their study. The library is located at 76 Oxford Rd, Ingleburn NSW 2565 and is just a 15 minute walk from the campus. 02 46454060

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# Important Information – Student Handbook, Policies and Procedures, Fees and Charges

Information about our training and assessment policies and procedures are included on our website <a href="www.stc.nsw.edu.au">www.stc.nsw.edu.au</a> and should be read by you, prior to enrolment in addition to the Student Handbook which is also located on our website. These documents contain important information about your training course, fees and charges including our refund policy.

### Identification of Student Needs and Student Support

Student needs are declared by the applicant at the time of enrolment: the application form allows the applicant to self declare where they have learning disabilities.

Every student is interviewed either face to face or over the telephone to attempt to establish the applicant skill and knowledge levels, their current employment and how that relates to the course content and interaction.

Where language literacy and numeracy are in question, Superior Training Centre has a language literacy and numeracy assessment they may undertake to confirm their level of language, literacy and numeracy skills.

Reasonable adjustments to training and assessment will be made and additional support (e.g. LLN, assistive technology, additional training, alternative delivery and assessment modes and methods) provided where students with physical attributes or specific learning needs are identified as requiring these changes to complete their training and assessment.