

Air-conditioning and Refrigeration

AQF VET qualification: Statement of Attainment towards Certificate III in Air-conditioning and Refrigeration (UEE32211)

Training Package: Electrotechnology (UEE11) version 1

BOS course name	Pattern of study	BOS course number	Schools Online (Administration) entry advice
Air-conditioning and Refrigeration (300 hours)	2 units x 2 years	51318	Enter this course number for both Preliminary (Year 11) and HSC (Year 12)
	and		
	1 unit x 1 year	51319	Enter this course number for either Preliminary (Year 11) or HSC (Year 12) depending on pattern of delivery.

Eligibility: This course is only available to students undertaking a school-based apprenticeship.

Exclusions: Electrotechnology Curriculum Framework

HSC course requirements

Air-conditioning and Refrigeration (300 indicative hours)

- the possible qualification outcome is a Statement of Attainment towards Certificate III in Air-conditioning and Refrigeration (UEE32211)
- accredited for a total of 5 units at the Preliminary and/or HSC level
- attempt units of competency to a minimum of 300 HSC indicative hours
- mandatory work placement requirements are met through the on-the-job training component of the school-based apprenticeship.

The requirements for the completion of an HSC VET course are different to the requirements for AQF VET qualification completion. Registered Training Organisations (RTOs) need to ensure that delivery of courses meets HSC course requirements and complies with Training Package rules.

For a course to count towards the HSC program of study, students must satisfy the course completion criteria as required by the Board of Studies. (Refer to the [Assessment Certification Examination \(ACE\) website](#).)

There must be sufficient evidence that the student has:

- followed the course developed by the Board
- applied themselves with diligence and sustained effort to the set tasks and experiences provided in the course
- achieved some or all of the course outcomes
- (where applicable) undertaken the mandatory work placement.

Unit credit for the Higher School Certificate

Air-conditioning and Refrigeration HSC VET courses count as Board Endorsed unit credit for the HSC but do not contribute towards an Australian Tertiary Admission Rank (ATAR).

To facilitate flexibility of VET in the HSC, courses may be delivered as Preliminary, as HSC or as a combination of Preliminary and HSC units.

The HSC credit units will be allocated to students' Preliminary and/or HSC patterns of study as required.

The pattern of study (BOS course number) entered on *Schools Online (Administration)* should reflect the delivery of the HSC VET course over successive years. For example, delivery of a 240 HSC indicative hour course over two years should be entered as 2 units x 2 years. Students will be credentialled for the HSC credit units entered each calendar year, provided they have satisfactorily completed the course requirements for that calendar year as determined by the school, college or RTO.

Course content

Unit code and title	Weighting points	Status for AQF VET qualification	HSC indicative hours of credit
UEENEEE101A <u>Apply Occupational Health and Safety regulations, codes and practices in the workplace</u>	20	core	15
UEENEEE102A <u>Fabricate, assemble and dismantle utilities industry components</u> Prerequisite: UEENEEE101A	40	core	30
UEENEEE103A <u>Solve problems in ELV single path circuits</u> Prerequisite: UEENEEE101A	40	core	35
UEENEEE105A <u>Fix and secure electrotechnology equipment</u> Prerequisite: UEENEEE101A	20	core	15
UEENEEE107A <u>Use drawings, diagrams, schedules, standards, codes and specifications</u> Prerequisite: UEENEEE101A	40	core	25
UEENEEJ102A <u>Prepare and connect refrigerant tubing and fittings</u> Prerequisite: UEENEEE101A	30	core	30
UEENEEJ103A <u>Establish the basic operating conditions of vapour compression systems</u> Prerequisite: UEENEEE101A	60	core	35
UEENEEJ104A <u>Establish the basic operating conditions of air conditioning systems</u> Prerequisite: UEENEEE101A	20	core	35
UEENEEJ108A <u>Recover, pressure test, evacuate, charge and leak test refrigerants</u> Prerequisite: UEENEEJ102A UEENEEJ103A UEENEEE101A	60	core	35
UEENEEJ174A <u>Apply safety awareness and legal requirements for hydrocarbon refrigerants</u>	10	elective – Group B	15
UEENEEJ184A <u>Apply safety awareness and legal requirements for carbon dioxide refrigerant</u>	10	elective – Group B	15
UEENEEP024A <u>Attach cords and plugs to electrical equipment for connection to a single phase 230 Volt supply</u> Prerequisite: UEENEEE101A	20	core	20

Unit code and title	Weighting points	Status for AQF VET qualification	HSC indicative hours of credit
<u>UEENEEP025A</u> <u>Attach cords, cables and plugs to electrical equipment for connection to 1000 Va.c. or 1500 Vd.c. supply</u> Prerequisite: <u>UEENEEP024A</u>	20	core	15
<u>UEENEEK142A</u> <u>Apply environmentally and sustainable procedures in the energy sector</u>	20	core	15

AQF VET qualification

Qualification packaging rules are contained in the [Electrotechnology Training Package \(UEE11\)](#) at <http://training.gov.au>.

In summary, to attain the full Certificate III in Air-conditioning and Refrigeration (UEE32211) students will need:

- a) 25 core units of competency (1000 points)
- b) elective units of competency totalling 60 points
 - maximum 30 points from Group A
 - minimum 30 points from Group B.

Other information

Criteria for the endorsement of Board Endorsed VET courses (VET BECs)

The criteria for endorsement of VET BECs are outlined in the *Guidelines for Stages 5 and 6 Board Endorsed VET Courses* available on the Board's website at www.boardofstudies.nsw.edu.au/voc_ed/board-endorsed-courses.html.

HSC VET course delivery

HSC VET courses can only be delivered by an RTO with the relevant qualification and units of competency on their scope of registration. Scope of registration can be checked at <http://training.gov.au>.

RTOs offering training programs for the delivery and assessment of Air-conditioning and Refrigeration HSC VET courses must meet the requirements of the VET Quality Framework, the *Electrotechnology Training Package (UEE11)* and the HSC course.

Information about the delivery of HSC VET courses by RTOs other than school system RTOs or TAFE NSW institutes is contained on the Board's *Assessment Certification Examination (ACE) website*.

Non-government schools outsourcing delivery of HSC VET courses to external providers also need to refer to the *Registered and Accredited Individual Non-government Schools (NSW) Manual* or *Registration Systems and Member Non-government Schools (NSW) Manual* which are available on the Board's website at www.boardofstudies.nsw.edu.au/manuals/#regaccredsystemsmanuals.

HSC work placement requirements

Work placement is a mandatory HSC requirement for all Air-conditioning and Refrigeration VET courses.

Students undertaking HSC VET courses as part of a school-based apprenticeship or traineeship will meet mandatory work placement hour requirements through the on-the-job training component of the school-based apprenticeship or traineeship.

Students' outside employment (ie not under the auspices of the school) may be recognised towards the requirement for work placement in a VET course (ACE 8051 – *Assessment Certification Examination (ACE) website*).

Non-completion of work placement is grounds for withholding the HSC course. Schools and colleges are advised to follow the procedure for issuing 'N' determinations as outlined on the Board's *Assessment Certification Examination (ACE) website*.

Allocation of HSC indicative hours of credit

Units of competency drawn from Training Packages are not defined in terms of duration. The amount of time required by individual students to achieve competency will vary according to their aptitude and experience. Where a training program is designed for delivery by an RTO, the RTO will specify the length of the training program according to the delivery strategies and/or curriculum resources chosen.

However, for the purposes of the HSC, VET courses must be described in terms of their indicative hours. For this reason, indicative hours for unit credit towards the HSC have been assigned to each unit of competency. It is emphasised that the assignment of indicative hours does not imply that all students will fulfil all requirements of a unit of competency within these hours. RTOs may determine that additional or fewer hours are required for the achievement of particular competencies. However, this does not alter the HSC indicative hours allocated, only the delivery hours.

Students may need to spend additional time practising skills in a work environment and completing projects and assignments, in order to fulfil Training Package assessment requirements.

Exclusions

Where there is significant overlap between an HSC VET course and other HSC VET or general education courses, the Board has an exclusion between the courses. Exclusions are applied at a course level rather than at the unit of competency level.

Schools should check all course exclusions when determining an appropriate pattern of study for their students.

Course exclusions for Air-conditioning and Refrigeration are detailed on the first page of this course description.

Recognition of Prior Learning (RPL) and credit transfer within VET courses

Students who have current knowledge, skills or experience relevant to a VET course may be granted credit towards the course requirements.

Arrangements for RPL and credit transfer within VET courses, including processes, application forms and examples of possible scenarios, are detailed on the Board's website at www.boardofstudies.nsw.edu.au/voc_ed/rpl.html.

School-based apprentices and trainees

Information regarding provision for school-based apprentices and trainees within the HSC is available on the Board's website at www.boardofstudies.nsw.edu.au/voc_ed/apprenticeships-traineeships.html.

Information on requirements and arrangements for NSW school-based apprenticeships and traineeships is available at www.training.nsw.gov.au/individuals/apprenticeships_traineeships/school_based/index.html.

Students with special education needs

Students with special education needs may access a VET course in one of two ways:

- by undertaking the course under regular course arrangements, or
- by undertaking selected units of competency within the course that have been identified through the collaborative curriculum planning process.

For more information, see the [VET Courses and Students with Special Education Needs](#) fact sheet on the Board's website.

Students in Years 9 and 10 (Stage 5)

In certain circumstances students in Years 9 and 10 (Stage 5) may access Stage 6 VET courses. Further information is available on the Board's website at www.boardofstudies.nsw.edu.au/voc_ed/stage-5.html.