



# MEM60112 Advanced Diploma of Engineering (HVAC)

National ID: MEM60112 | State ID: WB89

## About this course

### Are you ready for an engineering career that is neither too hot nor too cold?

When you complete the Advanced Diploma of Engineering (HVAC) you'll have specialist skills in heating, ventilation and air conditioning systems, as a **mechanical design engineer**, **sales consultant**, or **project manager**.

You will gain the advanced skills and knowledge to design and implement HVAC systems, incorporating thermodynamics principles, psychrometric processes, evaluating thermal loads and performance, analysing noise and vibration, energy management principles, and building information models, applying engineering mechanics principles, and workplace health and safety.

South Metropolitan TAFE's refrigeration and air conditioning facility is Western Australia's premier centre for refrigeration, air conditioning, and associated studies. The purpose-built facility is among the best in the southern hemisphere.

## Overview

### Semester 1, 2019

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## Carlisle Campus - Full Time-Classroom



Duration: **2 Years**



When: **Semester 1, 2019**



How: **Full Time**

## Units

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### Core

National ID	Unit Title
MEM16006A	Organise and communicate information
MEM16008A	Interact with computing technology
MEM22001A	Perform engineering activities
MEM22002A	Manage self in the engineering environment
MEM30007A	Select common engineering materials
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment
MSAENV272B	Participate in environmentally sustainable work practices

### Elective

National ID	Unit Title
CPPBDN5013A	Develop and collaborate on building information models for small-scale building design projects
MEM09155A	Prepare mechanical models for computer-aided engineering (CAE)
MEM09157A	Perform mechanical engineering design drafting

National ID	Unit Title
MEM12024A	Perform computations
MEM23003A	Operate and program computers and/or controllers in engineering situations
MEM23004A	Apply technical mathematics
MEM23005A	Apply statistics and probability techniques to engineering tasks
MEM23006A	Apply fluid and thermodynamics principles in engineering
MEM23007A	Apply calculus to engineering tasks
MEM23008A	Apply advanced algebra and numerical methods to engineering tasks
MEM23109A	Apply engineering mechanics principles
MEM23124A	Measure and analyse noise and vibration
MEM23129A	Evaluate thermal loads for heating, ventilation, air conditioning and refrigeration
MEM23130A	Coordinate servicing and fault-finding of HVACR control systems
MEM23140A	Determine operational parameters for building HVAC hydronic systems
MEM23141A	Complete a building thermal performance survey
MEM23142A	Determine psychrometric processes and system performance
MEM23147A	Contribute to the design of hydronic systems
MEM23153A	Contribute to the design of heat exchanger systems
MEM30026A	Select and test components for simple electronic switching and timing circuits
MEM30031A	Operate computer-aided design (CAD) system to produce basic drawing elements
MEM30032A	Produce basic engineering drawings
MEM30033A	Use computer-aided design (CAD) to create and display 3-D models

## Entrance requirements

School Leaver	Non-School Leaver	AQF
Completion of WACE General or ATAR (Minimum C Grades) or equivalent	Completion of WACE General or ATAR or equivalent (minimum C Grades)	Certificate III

## Fees and charges

### Indicative fees and charges

[2019 general admission fees list](#)

[2019 apprenticeship/traineeship fees list](#)

Fees and charges published on our website are indicative. Your fees will depend on your eligibility for government funding or a concession rate, and the units you choose to study or seek to be recognised under Recognition of Prior Learning (RPL). Our Indicative fees lists show fees that are:

- Based on the full possible study plan of units, including the recommended electives
- Based on full time study in 2019
- Charged at the government funded rate for over 18 years of age students
- Based on unit electives designed to meet localised industry demand for skills
- Made up of course fees and resource fees, or RPL fees. Course fees are the cost of your tuition, while resource fees pay for consumables provided to you to aid your study (such as printing and paper). You may also be required to purchase text books or equipment that are not part of our tuition or resource fees.

Fees may vary between students and between educational providers. Other charges may apply.

Visit our [Fees and payment options](#) page for more information.

Call 1800 001 001 to get a more accurate fee indication based on your eligibility and study plan before applying.

### VET Student Loans

Selected courses are VET Student Loan eligible courses.

A VET Student Loan creates a debt that must be repaid to the Commonwealth and is only available to students who are eligible.

To find out if you are eligible or to see the list of eligible courses visit our [Student Loans](#) page.

## International students

Selected courses are available to International students for full time study only.

Fees, charges, available locations, applications and enrolment procedures for International students are different to those for students who have Australian permanent residency.

For more information or to find a course visit the [TAFE International WA](#) website.

## Apprenticeships and traineeships

Fees for apprenticeships and traineeships are charged at a rate per nominal hour of study.

This means that your fees will vary depending on the units you study as part of your training plan.

Apprentices and trainees are liable to pay for their own fees but some industrial agreements (awards) dictate that employers are required to reimburse their apprentice upon receipt of satisfactory progress. An employer may also opt to pay on behalf of the apprentice or trainee.

For more information visit our [Apprenticeships and traineeships](#) page.

## Recognition of Prior Learning

Recognition of Prior Learning (RPL) enrolments are charged at \$3.25 per nominal hour of study.

No concession fees apply to RPL enrolments. Refer to the institutional or apprenticeship/traineeship fee lists for an indicative RPL course fee.

**Please note, fees are subject to change.**