



# MEM60112 Advanced Diploma of Engineering

National ID: MEM60112 | State ID: J368

## About this course

### Are you ready for a technically advanced engineering career?

When you complete the Advanced Diploma of Engineering you'll have analytical skills in mechanical engineering, as an engineering technician, detailed drafter, or maintenance technician.

You will gain the advanced skills and knowledge to carry out mechanical engineering drafting and design, analytical work involving manufacturing and fabrication techniques, understand the application of engineering principles, systems, and processes, draw and design mechanical equipment, maintain mechanical systems, and workplace health and safety.

Completion of the Advanced Diploma of Engineering opens up a range of further study options, and may produce advanced standing towards a university degree.

## Overview

### Semester 2, 2019

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## Munster - Full Time-Classroom



Duration: **2 Years**



When: **Semester 2, 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
MEM09155A	Prepare mechanical models for computer-aided engineering (CAE)
MEM09157A	Perform mechanical engineering design drafting
MEM14085A	Apply mechanical engineering analysis techniques
MEM14089A	Integrate mechanical fundamentals into an engineering task

National ID	Unit Title
MEM22013A	Coordinate engineering projects
MEM23003A	Operate and program computers and/or controllers in engineering situations
MEM23004A	Apply technical mathematics
MEM23006A	Apply fluid and thermodynamics principles in engineering
MEM23007A	Apply calculus to engineering tasks
MEM23008A	Apply advanced algebra and numerical methods to engineering tasks
MEM23063A	Select and test mechanical engineering materials
MEM23109A	Apply engineering mechanics principles
MEM23111A	Select electrical equipment and components for engineering applications
MEM23113A	Evaluate hydrodynamic systems and system components
MEM23114A	Evaluate thermodynamic systems and components
MEM23115A	Evaluate fluid power systems
MEM23120A	Select mechanical machine and equipment components
MEM30005A	Calculate force systems within simple beam structures
MEM30006A	Calculate stresses in simple structures
MEM30009A	Contribute to the design of basic mechanical systems
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

This course is available as a traineeship.

## Entrance requirements for traineeships

You must be employed in a training contract by an appropriate organisation to study an apprenticeship or traineeship.

In a traineeship you also gain hands-on skills and work experience, and improve your employment prospects, while earning a wage. On successful completion you will gain a nationally recognised qualification which can lead to rewarding career options. The difference between a traineeship and an apprenticeship is that a traineeship can be either a full time or part time employment based training arrangement, usually for a nominal duration of 12 months or more, generally in a non-trade related area.

To find out how to arrange a traineeship and study at South Metropolitan TAFE, please contact the [Jobs and Skills Centre](#) closest to you.

## Job opportunities

The Advanced Diploma of Engineering provides the formal technical education, which is necessary for engineering associates and engineering technicians. Among the skills you will develop are: - able to carry out mechanical engineering and design drafting; - engage in work which is basically analytical with a good background understanding of manufacturing and fabrication techniques; - develop a broad understanding of the applications of engineering principles, materials, systems, standards and processes. A significant feature of the qualification is its practical learning-by-doing project component. Graduates are typically employed in areas such as: - computer aided design and drafting - process plant drafting and design - machine drafting and design - air conditioning drafting and design - shipbuilding drafting and design - plant maintenance supervision (building on a trade background) - general engineering and technical positions - other technical areas

For information about jobs and pathways, please see <http://joboutlook.gov.au/>

Further study opportunities:

- University

## 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.**