

## TAFE WA Engineering Courses

TAFE Engineering courses prepare graduates to gain employment as trade or para-professional engineers. These courses align with the requirements for professional organisations and associations, providing graduates with skills that lead to job opportunities in businesses working to the world's highest standards. The para-professional courses can also lead into University study with advanced standing.

The advantage of studying engineering training at TAFEWA is that it encourages "learning-by-doing". This means that - in addition to learning relevant theoretical concepts - the focus is on developing hands-on practical skills that are highly valued by industry. Engineering apprentices and cadets train in well-equipped workshops and laboratories and use some of the most up-to-date engineering software packages available.

TAFEWA courses are developed with the input of industry leaders. This ensures they are customised to meet the technology and skill requirements of local, state and national employers.

During their training, TAFEWA students apply their engineering knowledge and skills to engineering projects and to real situations and problems encountered in industry

For information on TAFE WA courses visit the website

or you can visit each individual TAFE website to see what they offer

SWAN TAFE

WEST COAST TAFE

CENTRAL TAFE

Trade engineering qualifications

Aviation

MEA40707 Certificate IV in Aeroskills (Mechanical)

MEA40607 Certificate IV in Aeroskills (Avionics)

MEA40807 Certificate IV in Aeroskills (Structures)

- Aircraft Maintenance Engineers (

AMEs) maintain, inspect and fault find aircraft components to ensure they comply with airworthiness standards. This includes the electrical, electronics, communication, hydraulics, engines, generators, pressurisation controls, safety systems and structural components.

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AMEs work under strict guidelines which includes the reporting of all work carried out on aircraft.

AMEs go on to complete CASA assessments to become Licences Aircraft Maintenance Engineers (LAMEs) which permits them to take greater responsibility in the maintenance of aircraft. Aviation Engineers work in a range of industries including defence, commercial and smaller charter organisations.

Students considering aviation apprenticeships should have a good understanding of maths and physics concepts as well as a strong mechanical aptitude.

## Electrical

MEM30405 Certificate III in Engineering – Electrical/Electronic Trade (Electrician)

and

UTE31199 Certificate III in Electrotechnology Systems Electrician

These qualifications include the installation and maintenance of electrical components, wiring, equipment and systems electrical systems safety, measurement, testing and fault diagnostics and interpretation of technical drawings.

Both of these qualifications meet the requirements of the Office Energy (WA) for Electrical apprentices and leads to an A grade licence Licensed electricians are employed in a range of fields including the construction and resources industries, and marine and defence. Students considering an electrical apprenticeship should have good maths skills and be able to pass a colour blindness test

## Fabrication

MEM30305 Certificate III in Engineering – Fabrication Trade

Pathways or specialisations in:

### Patternmaking

#### Casting and Moulding

Heavy/Light Fabrication [Heavy (Boilermaker), Light (Sheetmetal)]

#### Welding

This qualification includes the interpretation of sketches and the measurements and calculations to cut, shape, join and finish metals to make metal structures and products. Metal Fabricators or welders can work in a range of areas such as mining - earth moving equipment, mine structures, oil rigs, process plant equipment; marine industry - ship building, storage vessels, cranes; construction - building structures, bridges

Students considering a fabrication apprenticeship should have good hand-eye co-ordination and the ability to visualise how an object will look from a drawings

## Mechanical

## MEM30205 Certificate III in Engineering – Mechanical Trade

Pathways or specialisations in:

### Machinist Metal

Fitter

Fitting & Machinist

Plant Mechanic

This qualification includes the assembly and repair of machines, parts and tools, mechanical cutting and machining, identification of metals, the methods used to join metals and the drawing and interpreting sketches

Fitters and machinists work on pumps, hydraulics and pneumatics. Many find work in the mining industry and on off shore oil rigs, repairing and servicing heavy mining equipment. Many fitters become equipment specialists working in specific industry areas. Machinists work from detailed drawings to create parts (made from metal and other materials) using lathes, milling machines and various power-tools, to make and service machinery, pumps and other equipment. Students considering an apprenticeship in mechanical engineering should have strong maths skills and good visualisation skills.