adapt education

# CERTIFICATE II IN ENGINEERING PATHWAYS

## VET in Schools

# COURSE OUTLINE

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## DO YOU HAVE STUDENTS WHO ARE:

⇒ Seeking a pathway into the engineering industry

⇒ Seeking an engineering related apprenticeship

⇒ Disengaged with mainstream classes

**"We offer programs designed by engineering industry experts specifically for schools."**

## COURSE OVERVIEW

**Who:** School-Based Students in Yr10, 11 or 12 with interest in the Engineering Industry

**Duration:** 1 day per week over 4 terms or structured to suit curriculum timetable

**Cost:** Free for students through VETiS funding or a "fee-for-service" may apply

**Where:** All training conducted on school grounds during school hours

**Equipment:** All student resources, equipment, building materials and personal protective equipment is provided, including a "High Vis" shirt with school logo.

**Future Pathways:** Exclusive partnerships with industry, providing work experience and apprenticeship opportunities.

## COURSE OUTCOMES

⇒ Nationally Recognised Certificate II in Engineering Pathways (MEM20413)

⇒ Up to 4 QCE points

⇒ Access to industry employment and apprenticeship opportunities

## DELIVERY OPTIONS

⇒ Delivered as a fully independent course by Adapt Education. All delivery and assessment conducted by our trusted partner Our Industry Training with no requirements or impact on school teaching staff.

⇒ Mapped to the Engineering SAS.

⇒ Partnering opportunities are available for schools who would like to run our program delivered by their own teaching staff.

## STUDY OPTIONS

For the theory component of the course, resources are:

⇒ Online: benefit from an easy to navigate elearning course. Online is interactive, meaning less readings and more visually engaging resources.

⇒ Resources can be printed or provided on a USB stick if needed.

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## WHY ENGINEERING?

One of the great attractions of engineering work is the huge variety of tasks and environments in which engineers find themselves working here and overseas.

From designing programs at a computer terminal, to overseeing maintenance operations for major structures like aircraft, ships, heavy earth moving equipment, mobile cranes and offshore oil platforms – there are many ways to be involved in engineering

One of the main disciplines Mechanical and Manufacturing Engineering turns energy into power and motion. Mechanical Engineers design, create and improve systems and machinery that is used for domestic, public and industrial purposes.

You may like to view the other disciplines at:

https://ibsa.org.au/manufacturing-sso/

https://www.youtube.com/watch?v=fJ4jUi4-0H0

Currently The Manufacturing and Engineering Transition Project is targeting three key skill areas that are deemed important to the manufacturing and engineering industries:

⇒ Welding skills
⇒ Technical skills:
⇒ Trainer/Supervisor/Coordinator skills

Two key drivers of industry growth and change underpin this work:

⇒ Key government initiatives, such as the new Australian Defence Force projects, which will have particular impact on Australia's shipbuilding and military vehicle manufacturing sectors, but also many implications for the broader manufacturing and engineering industries.
⇒ Technology trends around automation and digitisation (including those incorporated under Industry 4.0), use of advanced materials, and augmented and virtual reality, which are creating new ways of working and new business opportunities and models, as well as providing industry with opportunities to increase efficiency and productivity.

Nationally Recognised Training

Skills Assure
Proud to be a Queensland Government subsidised training provider

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## COURSE STRUCTURE

This qualification provides an introduction to the engineering industry.
The units cover essential skill and knowledge requirements to successfully commence work in the industry.

This Nationally Recognised course consists of 12 units:

1. MEM13014A Apply principles of occupational health and safety in the work environment
2. MEMPE005A Develop a career plan for the engineering and manufacturing industry
3. MEMPE006A Undertake a basic engineering project
4. MSAENV272B Participate in environmentally sustainable work practices
5. MEM16006A Organise and communicate information
6. MEM18001C Use hand tools
7. MEM18002B Use power tools/hand held operations
8. MEMPE001A Use engineering workshop machines
9. MEMPE002A Use electric welding machines
10. MEMPE003A Use oxy-acetylene and soldering equipment
11. MEMPE004A Use fabrication equipment
12. MSAPMSUP106A Work in a team

## ENTRY REQUIREMENTS

It is expected that students have basic written and verbal communication skills, basic numeracy skills and basic computer operating skills. Schools must disclose any students with Language, Literacy or Numeracy (LLN) issues. We are able to assist participants whom experience LLN issues, or a disability.

## ASSESSMENT

Assessment consists of two key areas:

⇒ Theory assessment: multi-choice and short answer questions.
⇒ Practical engineering project (Create a fully operational Go Kart or BBQ): Adapt has several “standard” projects students can undertake, or the school can discuss the inclusion of specific projects that will benefit the school, such as beautification or maintenance projects around the school.

Unlimited access to your trainer available through phone, email and message portal.

ADAPT EDUCATION RTO# 32452
Delivery and Assessment conducted
by Our Industry Training

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