

MEM50222

# Diploma of Engineering- Technical

CRICOS CODE 112013H

## JOB PROSPECTS

CAD Drafter, Mechanical Engineer and mid level positions in engineering

## DURATION

52 weeks

## ENTRY REQUIREMENTS

- Completion of Year 12 or equivalent.
- Non school-leavers are selected according to eligibility and merit, vocational experience, previous study and personal competencies.
- English language requirements: IELTS 5.5 (with no individual band less than 5.0), Upper Intermediate or Site Institute pre-admission test
- Students successfully completing the diploma will also be awarded the Certificate III in Engineering – Technical.

Looking to gain practical skills in advanced engineering and manufacturing technologies to stay ahead in today's competitive job market? Look no further than the Diploma of Engineering-Technical.

## WHY THIS COURSE?

**Industry-Relevant Learning:** Our program is designed with input from industry experts to ensure you learn the most relevant and up-to-date skills for success in the workforce. You'll be equipped with the practical skills in organising and analysing information, interacting with computing technology, and selecting engineering materials.

**Focus on Advanced Engineering:** Dive deep into the world of advanced engineering and manufacturing technologies. You'll learn about the latest tools and techniques used in industry and gain the expertise needed to increase efficiency, productivity and competitiveness in modern manufacturing.

**Technology Skill Development:** Master cutting-edge software tools used in engineering and manufacturing, including computer-aided design (CAD) and computer-aided manufacturing (CAM) software. These tools will help you produce accurate, professional designs and prototypes that will set you apart in your field.

**Selection Analysis:** Develop expertise in steel detailing, including structural steel members, connections, and ancillary steel work. Learn how to apply structural steel principles.

**Teamwork and Project Management:** Understand the importance of collaboration and communication in the engineering and manufacturing fields. You'll gain valuable skills in project management, teamwork, and relationship management to ensure project success and customer satisfaction.

## UNITS OF COMPETENCY

**MEM09011B** Apply basic engineering design concepts  
**MEM23007A** Apply calculus to engineering tasks  
**MEM23109A** Apply engineering mechanics principles  
**MEM23006A** Apply fluid and thermodynamics principles in engineering  
**MEM30012A** Apply mathematical techniques in a manufacturing, engineering or related environment  
**MEM23004A** Apply technical mathematics  
**MEM30005A** Calculate force systems within simple beam structures  
**MSATCS504A** Detail ancillary steelwork  
**MSATCS501A** Detail standardised structural connections  
**MSATCS502A** Detail structural steel members  
**MEM16008A** Interact with computing technology  
**MSATCS301A** Interpret architectural and engineering design specifications for structural steel detailing  
**MEM09002B** Interpret technical drawing  
**MEM30031A** Operate computer-aided design (CAD) system to produce basic drawing elements  
**MEM16006A** Organise and communicate information

**MSAENV272B** Participate in environmentally sustainable work practices  
**UEPMNT419B** Perform civil drafting  
**RIICWD501D** Prepare detailed design of foundations  
**MEM09155A** Prepare mechanical models for computer-aided engineering (CAE)  
**MEM09204A** Produce basic engineering detail drawings  
**MEM30032A** Produce basic engineering drawings  
**MEM30007A** Select common engineering materials  
**MEM05051A** Select welding processes  
**MEM30033A** Use computer-aided design (CAD) to create and display 3-D models

## PATHWAYS

Completion of a Site Institute diploma can provide you with a pathway into a Bachelor's degree at leading Australian universities.

This means you can cut down the amount of time and money you need to complete your degree, or in some cases, even enrol straight into the second year of your university course.



## RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) assesses your competency from workplace experience, formal training, or expertise to determine qualification for a unit of study. If you believe you are eligible for RPL, indicate your intent to apply when enrolling, as it may shorten your course and adjust your Confirmation of Enrolment (CoE) accordingly.

## COURSE CREDIT

Our nationally endorsed qualifications include ASQA-approved Units of Competency. You need not repeat any units already assessed as Competent, unless mandated by regulations or licensing. When applying, submit evidence of completed units from other RTOs to receive credit.

## WHY CHOOSE US?

**Comprehensive Curriculum:** Our program covers all aspects of technical engineering, ensuring that you have a solid foundation in both the practical and theoretical aspects of the field.

**Industry Connections:** We partner with leading companies to provide our students with hands-on experience, internships, and job opportunities. Gain access to valuable resources and networking opportunities to jumpstart your career.

**State-of-the-Art Facilities:** Our modern, well-equipped workshops offer the perfect learning environment for mastering the latest tools and techniques. Experience first-hand the technology shaping the industry.

**Experienced Instructors:** Learn from the best! Our instructors are seasoned professionals with years of industry experience. They're passionate about sharing their knowledge and helping you succeed.

**INDUSTRY CONNECTED.  
FUTURE FOCUSED.**

Level 2, 488 Queen Street, Brisbane, QLD 4000  
+61 7 3177 9997  
international@si.edu.au  
si.edu.au