



**Careers  
Australia**

**Our Experience - Your Education**

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***MEM50105 Diploma of Engineering – Advanced Trade  
MEM30305 Certificate III in Engineering Fabrication Trade  
(Boilermaking/Welding)***

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## ***COURSE HANDBOOK***

Careers Australia Institute of Training  
ABN 30 122 082 204  
RTO 31470  
CRICOS Provider 03026K (QLD)

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## **1 Entry requirements**

### ***Age requirements***

The age requirement for entry into Careers Australia Institute of Training International Programs is 18 years and over.

### ***Language requirements***

English is the language of instruction at Careers Australia Institute of Training (“the Institute”) and proficiency in speaking, listening, reading and writing English is essential. The International English Language Testing System (IELTS) is the preferred English language proficiency qualification but the Institute may accept other evidence of proficiency in English in individual cases.

The Institute requires all students whose first language is not English to provide formal evidence of their English competency with an IELTS test. This test must be current within the last two years. Where evidence of a suitable test result can not be provided, the Institute reserves the right to deny the application until the language requirement can be met by the applicant.

The minimum level of a student’s English language is a score of not less than 5.5 IELTS (Academic) or equivalent. Please note that while the Institute accepts both IELTS and OET (Occupational English Test), in some countries the Australian Diplomatic Mission may accept only IELTS to determine English language proficiency.

Please check with the Australian Diplomatic Mission in your country to ensure that you are taking the appropriate test. Further information may be accessed from the Australian Department of Immigration and Citizenship [www.immi.gov.au](http://www.immi.gov.au) or the Australian Government Department of Foreign Affairs and Trade <http://www.dfat.gov.au/missions>

### ***Academic recognition***

The Institute requires all students to have a completion of secondary schooling. Students with other qualifications should apply for pre visa course credit recognition assessment. Your qualification details can be forwarded to the Institute for assessment.

## **2 Course information**

The training is conducted under the MEM05 National Training Package. The Institute may alter its course design and structure within the rules of the qualification and endeavours to engage students in such changes as much as practicable.

Any transition from one package to another will be facilitated to minimise disruption to students. Changes to course requirements may require changes to course fees, and students will be responsible to meet any fee increases associated with such changes as and when they fall due.

### ***Course structure***

The Certificate III in Engineering Fabrication (Boilermaking/Welding) course is designed to give the student key engineering skills including welding techniques.

Practical engineering theory sessions form student’s compulsory timetable and are designed to give each student specialised support in their studies and cultural transition to Australia.

**Requirements to achieve a qualification**
**MEM30305 Certificate III in Engineering Fabrication Trade (Boilermaking/Welding)**

To receive a MEM30305 Certificate III in Engineering Fabrication Trade (Boilermaking/Welding), the student must undertake and successfully complete all units of competency in the program to a total of 96 points and Vocational Placement.

Unit of Competency Code	Unit of Competency Name	Points	RPL Fee
MEM13014A	Apply principles of occupational health & safety in the work environment.	0	\$220
MEM14004A	Plan to undertake a routine task	0	\$220
MEM16007A	Work with others in a manufacturing, engineering or related environment	0	\$220
MEM18001C	Use hand tools	2	\$220
MEM18002B	Use power tools/hand held operations	2	\$220
MEM12024A	Perform Computations	3	\$220
MEM12023A	Perform engineering measurements	5	\$220
MEM09002B	Interpret technical drawing	4	\$220
MEM15024A	Apply quality procedures	0	\$220
MEM15002A	Apply quality systems	2	\$220
MEM16006A	Organise and communicate information	2	\$220
MEM16008A	Interact with computing technology	2	\$220
MEM05051A	Select welding processes	2	\$220
MEM05052A	Apply safe welding practices	4	\$220
MEM05007C	Perform manual heating, thermal cutting	2	\$220
MEM05001B	Manual soldering/de-soldering-electrical/electronic components	4	\$220
MEM05005B	Carryout Mechanical cutting	2	\$220
MEM05006B	Perform Brazing or silver soldering	2	\$220
MEM05049B	Perform routine gas tungsten arc welding	2	\$220
MEM05019C	Weld using gas tungsten arc welding process	4	\$220
MEM05037B	Perform geometric development	6	\$220
MEM05004C	Perform routine Oxy acetylene Welding	2	\$220
MEM05003B	Soft Soldering (Basic)	2	\$220
MEM14005A	Plan a complete activity	4	\$220
MEM17003A	Assist in the provision of on the job training	2	\$220
	Vocational Placement		

**MEM50105 Diploma of Engineering**

To receive the MEM50105 Diploma of Engineering, the student must satisfy the competency requirements for all seventeen (17) mandatory competency units and the completion of specialisation units to the value of at least 136 points, from the specialisation units in group 1 and group 2 of the Metal and Engineering Training Package and Vocational Placement.

Unit of Competency Code	Unit of Competency Name	Points	RPL Fee
MEM12025A	Use graphical techniques and perform simple statistical computations	2	\$275
MEM16009A	Research and analyse engineering information	2	\$275
MEM16011A	Communicate with individuals and small groups	2	\$275
MEM16012A	Interpret specifications and manuals	4	\$275
MEM16014A	Report technical information	2	\$275
MEM30012A	Apply mathematical techniques in a manufacturing, engineering related	4	\$275
MEM12003B	Perform precision mathematical measurement	2	\$275
MEM18055B	Dismantle, replace and assemble engineering components	3	\$275
MEM18003C	Use tools for precision Work	4	\$275
MEM18006B	Repair and fit engineering components	6	\$275
MEM18011C	Shut down and isolate machines/equipment	2	\$275
MEM05026B	Apply welding principles	4	\$275
MEM18010C	Perform equipment condition monitoring and recording	4	\$275
MEM18016B	Analyse plant and equipment condition monitoring results	4	\$275
MEM18018C	Maintain pneumatic system components	4	\$275
MEM18019B	Maintain pneumatic systems	4	\$275
MEM18020B	Maintain hydraulic system components	4	\$275
MEM18021B	Maintain hydraulic systems	4	\$275
MEM18022B	Maintain fluid power controls	8	\$275
MEM18023B	Modify fluid power system operation	8	\$275
	Vocational Placement		

**Course timetable**

The Certificate III in Engineering Fabrication (Boilermaking/Welding) will be delivered and assessed in one year over two semesters and is considered to be full time. The Diploma of Engineering will also be delivered and assessed in one year over two semesters and is also considered to be full time. In addition students may undertake Vocational Placement at regular times during their studies.

To maximise your opportunity for success, students are expected to attend each scheduled session. The minimum class contact hours are 20 hours per week. It is expected that for every hour of class contact time, you will need to complete a minimum of one ½ hour self study time in order to meet the course requirements. If a student is absent from two or more consecutive sessions, a medical certificate is required and a counseling session is available.

Students are encouraged to manage their time and study habits efficiently to allow sufficient time for relaxing, catching up with family and friends, hobbies and fun.

### **Teaching methodology**

Teaching will be conducted in two distinct modes: Theory and Practical. However, these modes will be interlaced with some theoretical information delivered during Practical sessions in order to provide students with the required links between the underpinning knowledge and skills required to achieve competency in any particular task. Also, during purely theoretical subjects activities such as role-plays may be conducted in order that students may apply knowledge and practice skills.

This course is based on the practical application of skills and knowledge needed by Engineering trades people and uses effective training methodology in cases of individual or small group settings. Whichever delivery mode is used, the emphasis is on practical based applications.

With the support of learning materials, the course is delivered through a range of modes, including:

- Face to face facilitation
- Independent learning
- Group based workshops and discussions
- Simulated sessions

### **Assessment and grading**

**Assessment evidence** considers how the person brings together:

- Knowledge
- An understanding of the work context
- A decision about what to do
- Attitudes, values and ethics as well as what the person actually did to perform the role.

**Assessment methodology** may include:

- Practical Sessions
- Short answer/multiple choice questions
- Assignments
- Examinations
- Oral presentations
- Live and Simulated Service techniques
- Live and simulated repair techniques
- Role play
- Question and answer (verbal or written)
- Visual presentation

### **Re-assessment**

Any re-assessment is conducted as soon as practicable after you have been informed of the requirement to be re-assessed and have been given the opportunity to be re-trained and assimilate the training if required. You are re-assessed in only the areas assessed NYC and re-assessment is made under the same conditions as the original assessment. It is at the trainer's discretion to re-assess the entire assessment should it be demonstrated an overall understanding of this unit has not been achieved.

The **grading system** of the Certificate III and Diploma programs is either Competency Achieved (CA) or Not Yet Competency (NYC).

### **Academic Progress**

CAIT has a Duty of Care which extends to monitoring student academic performance. CAIT has procedures in place to help meet student course progress requirements. If a student is identified as not making satisfactory course progress an intervention support program will be implemented.

International students are expected to achieve the following minimum requirements in order to meet the satisfactory course progress requirements:

- A grade of Competent in at least 50% of class assessment
- Satisfactory attendance at scheduled classes

Students will not progress to the next study period unless satisfactory course progress is made in the previous study period. Attendance at Tutorials allows students with unsatisfactory course progress to achieve competency in any subjects not passed.