

Certificate II in

# Automotive Technology

National Course Code: **21110VIC**

## General Information

This Certificate II in Automotive competency package provides students with skills and the ability to:

- Achieve competencies relevant to business needs in automotive retail, recreational boating, outdoor power equipment and bicycle retail industries.
- Achieve competencies relevant to career path aspirations, within the automotive and allied industries through apprenticeships and traineeships.
- Further develop career path options in the automotive and allied industries through the Higher Education sector.

## Career Opportunities

Credit will be given for each level of competence achieved. Training done under the new competency system will be nationally recognised.

## Mode of Study and Location

This program is available on a full-time basis at the SMB Campus Ballarat and Horsham Campus.

## Entry Requirements

It is expected that participants can:

- Read, comprehend and discuss information.
- Write simple sentences.
- Participate in small groups.
- Have an interest in the automotive industry as a career.

The principles of affirmative action and student employability within the industry will also be considered.

## Course Structure

The course duration is 400 hours, at approximately 20 hours per week for a semester.

## Course Content

Unit Code	Module Name
AUR70125	Follow workplace OH&S procedures
AUR70278	Use & maintain workplace equipment
AUR70314	Contribute to workplace communication
AUR70421	Establish customer relations

## Compulsory Core

Unit Code	Module Name
AUR00108	Carry out maintenance & servicing
AUR18676	Test, service and replace batteries
AUR18708	Carry out minor repairs to electrical systems
AUR25678	Use and maintain measuring equipment
AUR37927	Identify automotive components & parts
AUR51356	Read in the workplace
AUR51677	Use numbers in the workplace
BSATEC102	Access and retrieve computer data

## Mechanical Stream (electives)

Unit Code	Module Name
AUR00170	Service engines and components
AUR02170	Service cooling systems
AUR03170	Service petrol fuel systems
AUR06170	Service clutch assemblies & systems
AUR06670	Service transmissions (manual)
AUR09170	Service hydraulic systems
AUR16170	Service suspension systems
AUR17668	Select tyres and rims for applications (light)
AUR23608	Welding, soldering & thermal cutting

## Vehicle Body Stream (electives)

Unit Code	Module Name
AUR26864	Remove and replace vehicle body panels
AUR30349	Prepare vehicle components for paint repairs
AUR23608	Welding, soldering & thermal cutting

**Total Nominal Hours** **400**

## Assessment

Progressive assessments are conducted during and at the completion of each competency.

## Competency Based Training

A Competency is the culmination of practical skills and the underpinning knowledge appropriate of the vocational skill/task.

Competency Based Training is concerned with assisting people to gain specific competencies, which are required in the workplace.

This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

## Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

### **Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

### **Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

### **Course Enquiries**

For further course information contact:

#### **Horsham Campus**

Alan Jolley  
School of Manufacturing Services – Engineering &  
Automotive  
Telephone (03) 5362 2621

#### **SMB Campus - Ballarat**

Grant Petch  
School of Manufacturing Services – Engineering &  
Automotive  
Telephone (03) 5327 8196

Certificate III in

# Automotive (Mechanical - Heavy Vehicle Mobile Equipment, Plant/Earth Moving /Agriculture)

National Course Code: **AUR30999**

## General Information

To be employed as a Motor Mechanic Apprentice, a person must be at least 15 years old and have an educational standard that satisfies the individual employer requirements. Employment is obtained by answering news media advertisements, contacting the local office of Centre Link or other Employment Agencies, or by personally approaching employers who employ Motor Mechanic Apprentices. The Victorian Automotive Chamber of Commerce (V.A.C.C.) conducts aptitude tests on behalf of Employers if requested. The successful completion of such a test may hold a person in good stead in relation to that position.

An apprentice Motor Mechanic may commence schooling at any stage throughout the year, providing the SMB & Horsham Campuses have a position available. An apprentice who has completed the Certificate II in Automotive (Technology) (Mechanical & Electrical Stream) will receive some credits into this apprenticeship course.

## New Apprenticeships

A New Apprenticeship is a training agreement between an employer and an employee, in which the employer provides systematic training and the apprentice agrees to learn the occupation/trade. New Apprenticeships include both traditional trade apprenticeships and traineeships. Note: There may be different conditions, which could apply to New Apprenticeships.

Apprentices can be of any age over 15 and may already hold a qualification. This program is designed to meet the needs of those working in the Heavy Vehicle Mobile Equipment (Plant/Earth Moving/Agricultural) Industries. Training can be developed to suit the specific needs of an employer's business with a combination of on and off-the-job programs. At the end of the training period, the apprentice gains a nationally recognised qualification.

## Career Opportunities

Credit will be given for each level of competence achieved. Training done under the new competency system will be nationally recognised.

## Mode of Study and Location

Apprentices attending their first year of training in this apprenticeship at either the SMB (Ballarat) or Horsham Campuses, can complete the remainder of their training at Kangan Batman Institute of TAFE. The course uses a self-paced objective based syllabus, which allows the apprentice to progress at his/her own rate and to start the course at any time throughout the year without being disadvantaged. Apprentices will attend training at either Campus for five consecutive days for up to eight weeks each year.

**Total Nominal hours: 320 x 3 years = 960.**

## Entry Requirements

There are no entry requirements.

## Course Structure

Students can progress at their own pace using the objective based syllabus. See 'Mode of Study and Location'.

## Course Content

Unit Code	Module - Compulsory Common Core
AUR70125	Follow Workplace occupational Health & Safety procedures
AUR70278	Use and maintain workplace tools & equipment
AUR70314	Contribute to workplace communication
AUR70421	Establish relations with customers
Unit Code	Module - Compulsory Stream
AUR00108	Carry out maintenance &/or component servicing operations
AUR01166	Repair engines & associated engine components
AUR00170	Service engines & associated engine components
AUR02166	Repair cooling systems & associated components
AUR02170	Service Cooling Systems & Associated components
AUR03666	Repair diesel fuel systems/components
AUR03670	Service diesel fuel injection systems
AUR04170	Service gas fuel systems
AUR05166	Repair exhaust systems
AUR05671	Service & repair engine forced induction systems
AUR06166	Repair Clutch Assemblies &/or Associated Operating System Components

AUR06170	Service Clutch Assemblies &/or Associated Operating System Components
AUR06666	Repair Transmissions (Manual)
AUR06670	Service Transmissions (Manual)
AUR07166	Repair Transmissions (Automatic)
AUR07170	Service Automatic Transmissions
AUR09170	Service hydraulic systems
AUR10166	Repair Braking Systems
AUR10170	Service Braking Systems
AUR12666	Repair Final Drive Assemblies
AUR12670	Service Final Drive Assemblies
AUR13166	Repair Final Drive (Drive Line)
AUR13170	Service Final Drive (Drive Line)
AUR15166	Repair Steering Systems
AUR15170	Service Steering Systems
AUR16166	Repair Suspension Systems
AUR16170	Service Suspension Systems
AUR18676	Test, Service & Replace Battery
AUR18708	Carry Out Minor Repairs to Electrical Circuits/Systems
AUR18966	Repair instruments & warning systems
AUR19066	Repair Charging & Starting Systems
AUR21171	Service & Repair Electronic Engine Management Systems
AUR21271	Service & Repair Electronic Drive Management Systems

**ELECTIVES:**

Six (6) electives are to be sourced from any endorsed Industry Training Package related to the enterprise.

Unit Code	Module - Typical Electives
AUR01145	Overhaul engines & associated engine components
AUR03145	Overhaul petrol fuel system components
AUR03166	Repair Petrol Fuel Systems
AUR03170	Service Petrol Fuel Systems
AUR08166	Repair transmission (hydrostatic)
AUR08170	Service transmission (hydrostatic)
AUR09131	Install hydraulic systems to specific applications
AUR09166	Repair hydraulic systems
AUR15145	Overhaul steering system components
AUR17606	Balance tyres & wheels
AUR17665	Remove, fit & adjust wheel(s)
AUR17766	Remove, repair & fit tyres & tubes (light)
AUR17966	Remove, repair & fit tyres & tubes (heavy)
AUR17968	Select tyres & rims for specific applications (heavy)
AUR20666	Repair ignition systems
AUR22171	Service & repair air compressors/ components
AUR37119	Drive & manoeuvre trailer(s)
AUR65130	Inspect vehicle systems/components & determine preferred repair action

**Total Hours****1160****Assessment**

Progressive assessments are conducted during and at the completion of the competency. These assessments are conducted both on and off the job.

**Competency Based Training**

A Competency is the culmination of practical skills and the underpinning knowledge appropriate to the skill/task. Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area. A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

**Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

**Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

**Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

**Course Enquiries**

For further course information contact:

**Horsham Campus**

Terry McLean  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5362 2621

**SMB Campus - Ballarat**

Grant Petch  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5327 8196

Certificate III in

# Automotive (Mechanical - Heavy Vehicle Road Transport)

National Course Code: **AUR30899**

## General Information

To be employed as a Motor Mechanic Apprentice, a person must be at least 15 years old and have an educational standard that satisfies the individual employer requirements. Employment is obtained by answering news media advertisements, contacting the local office of Centre Link or other Employment Agencies, or by personally approaching employers who employ Motor Mechanic Apprentices. The Victorian Automotive Chamber of Commerce (V.A.C.C.) conducts aptitude tests on behalf of Employers if requested. The successful completion of such a test may hold a person in good stead in relation to that position.

An apprentice Motor Mechanic may commence schooling at any stage throughout the year, providing the SMB & Horsham Campuses have a position available. An apprentice who has completed the Certificate II in Automotive (Technology) (Mechanical & Electrical Stream) will receive some credits into this apprenticeship course.

## New Apprenticeships

A New Apprenticeship is a training agreement between an employer and an employee, in which the employer provides systematic training and the apprentice agrees to learn the occupation/trade. New Apprenticeships include both traditional trade apprenticeships and traineeships. Note: There may be different conditions, which could apply to New Apprenticeships.

Apprentices can be of any age over 15 and may already hold a qualification. This program is designed to meet the needs of those working in the Heavy Road Transport Industry. Training can be developed to suit the specific needs of an employer's business with a combination of on and off-the-job programs. At the end of the training period, the apprentice gains a nationally recognised qualification.

## Career Opportunities

Credit will be given for each level of competence achieved. Training done under the new competency system will be nationally recognised.

## Mode of Study and Location

Apprentices attending their first year of training in this apprenticeship at either the SMB (Ballarat) or Horsham Campuses, can complete the remainder of their training at Kangan Batman Institute of TAFE. The course uses a self-paced objective based syllabus, which allows the apprentice to progress at his/her own rate and to start the course at any time throughout the year without being disadvantaged.

## Entry Requirements

There are no entry requirements.

## Course Structure

Apprentices will attend training at either Campus for five consecutive days for up to eight weeks each year.

**Total Nominal hours: 320 x 3 years = 960.**

## Course Content

### COMPULSORY COMMON CORE

Unit Code	Module Name
AUR70125	Follow Workplace OH & S procedures
AUR70278	Use and maintain workplace tools & equipment
AUR70314	Contribute to workplace communication
AUR70421	Establish relations with customers

### Module - Compulsory Stream

Unit Code	Module - Compulsory Stream
AUR00108	Carry out maintenance &/or component servicing operations
AUR01166	Repair engines & associated engine components
AUR01170	Service engines & associated engine components
AUR02166	Repair cooling systems & associated components
AUR02170	Service Cooling Systems & Associated Components
AUR03666	Repair diesel fuel systems/ components
AUR03670	Service diesel fuel injection systems
AUR04671	Service & Repair Emission Control Systems
AUR05671	Service & repair engine forced induction systems
AUR06166	Repair Clutch Assemblies &/Or Associated Operating System Components
AUR06170	Service Clutch Assemblies &/Or Associated Operating System Components
AUR06666	Repair Transmissions (Manual)
AUR06670	Service Transmissions (Manual)
AUR07170	Service Automatic Transmissions
AUR09170	Service Hydraulic Systems
AUR10166	Repair Braking Systems
AUR10170	Service Braking Systems

AUR10166	Repair Air Braking systems
AUR10170	Service Air Braking systems
AUR12666	Repair Final Drive Assemblies
AUR12670	Service Final Drive Assemblies
AUR13166	Repair Final Drive (Drive Line)
AUR13170	Service Final Drive (Drive Line)
AUR15166	Repair Steering Systems
AUR15170	Service Steering Systems
AUR16166	Repair Suspension Systems
AUR16170	Service Suspension Systems
AUR18676	Test, Service & Replace Battery
AUR18708	Carry Out Minor Repairs to Electrical Circuits/Systems
AUR18866	Repair electrical systems
AUR19066	Repair Charging & Starting Systems
AUR21171	Service & Repair Electronic Engine Management Systems
AUR22670	Service air conditioning systems
AUR23608	Carry out Welding Soldering Cutting & Heating Procedures
AUR66108	Carry Out Diagnostic Procedures

**ELECTIVES:**

Six (6) electives are to be sourced from any endorsed Industry Training Package related to the enterprise.

<b>Unit Code</b>	<b>Module - Typical Electives</b>
AUR03166	Repair Petrol Fuel Systems
AUR03170	Service Petrol Fuel Systems
AUR04170	Service gas fuel systems
AUR05166	Repair exhaust systems
AUR07166	Repair Transmissions (Automatic)
AUR08170	Service transmissions (hydrostatic)
AUR09131	Install hydraulic systems to specific applications
AUR09166	Repair hydraulic systems
AUR10104	Assemble & fit braking systems/components
AUR17108	Carry out wheel alignment operations
AUR17606	Balance tyres & wheels
AUR17665	Remove, fit & adjust wheel(s)
AUR17966	Remove, repair & fit tyres & tubes (heavy)
AUR20666	Repair ignition systems
AUR21271	Service & Repair Electronic Drive Management Systems
AUR22171	Service & repair air compressors/ components
AUR37119	Drive & manoeuvre trailer(s)
AUR70508	Carry out manual handling operations

**Total Hours****1195****Assessment**

Progressive assessments are conducted during and at the completion of the competency. These assessments are conducted both on and off the job.

**Competency Based Training**

A Competency is the culmination of practical skills and the underpinning knowledge appropriate to the skill/task. Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area. A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

**Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

**Recognition of Prior Learning**

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**Application Information**

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All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

**Course Enquiries**

For more detailed course information contact:

**Horsham Campus**

Terry McLean  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5362 2621

**SMB Campus - Ballarat**

Grant Petch  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5327 8196

Certificate III in

# Automotive (Mechanical – Light Vehicle)

National Course Code: **AUR31099**

## General Information

To be employed as a Motor Mechanic Apprentice, a person must be at least 15 years old and have an educational standard that satisfies the individual employer requirements. Employment is obtained by answering news media advertisements, contacting the local office of Centre Link or other Employment Agencies, or by personally approaching employers who employ Motor Mechanic Apprentices. The Victorian Automotive Chamber of Commerce (V.A.C.C.) conducts aptitude tests on behalf of Employers if requested. The successful completion of such a test may hold a person in good stead in relation to that position.

An apprentice Motor Mechanic may commence schooling at any stage throughout the year, providing the SMB & Horsham Campuses have a position available. An apprentice who has completed the Certificate II in Automotive (Technology) (Mechanical & Electrical Stream) will receive some credits into this apprenticeship course.

## New Apprenticeships

A New Apprenticeship is a training agreement between an employer and an employee, in which the employer provides systematic training and the apprentice agrees to learn the occupation/trade. New Apprenticeships include both traditional trade apprenticeships and traineeships. Note: There may be different conditions, which could apply to New Apprenticeships.

Apprentices can be of any age over 15 and may already hold a qualification.

Training can be developed to suit the specific needs of an employer's business with a combination of on and off-the-job programs. At the end of the training period, the apprentice gains a nationally recognised qualification.

## Career Opportunities

Credit will be given for each level of competence achieved. Training done under the new competency system will be nationally recognised.

## Mode of Study and Location

Apprentices can complete all of their training in this course at either the SMB Campus (Ballarat) or

Horsham Campus. The course uses a self-paced objective based syllabus, which allows the apprentice to progress at his/her own rate and to start the course at any time throughout the year without being disadvantaged.

## Entry Requirements

There are no entry requirements.

## Course Structure

The course uses a self-paced objective based syllabus, which allows the apprentice to progress at his/her own rate and to start the course at any time throughout the year without being disadvantaged.

## Course Content

Unit Code	Module - Compulsory Common Core
AUR70125	Follow Workplace Occupational Health & Safety procedures
AUR70278	Use and maintain workplace tools & equipment
AUR70314	Contribute to workplace communication
AUR70421	Establish relations with customers
Unit Code	Module - Compulsory Stream
AUR00108	Carry out maintenance &/or component servicing operations
AUR01166	Repair engines & associated engine components
AUR01170	Service engines & associated engine components
AUR02166	Repair cooling systems & associated components
AUR02170	Service Cooling Systems & Associated components
AUR05166	Repair Exhaust Systems
AUR04671	Service & Repair Emission Control Systems
AUR03170	Service Petrol Fuel Systems
AUR03166	Repair Petrol Fuel Systems
AUR18676	Test, Service & Replace Battery
AUR18708	Carry Out Minor Repairs to Electrical Circuits/Systems
AUR19066	Repair Charging & Starting Systems
AUR21171	Service & Repair Electronic Engine Management Systems
AUR21271	Service & Repair Electronic Drive Management Systems
AUR21371	Service & Repair Electronic Body
AUR10170	Service Braking Systems
AUR10166	Repair Braking Systems
AUR15170	Service Steering Systems
AUR15166	Repair Steering Systems
AUR16170	Service Suspension Systems
AUR16166	Repair Suspension Systems

AUR06170	Service Clutch Assemblies &/or Associated Operating System Components
AUR06166	Repair Clutch Assemblies &/or Associated Operating System Components
AUR06670	Service Transmissions (Manual)
AUR06666	Repair Transmissions (Manual)
AUR07170	Service Transmissions (Automatic)
AUR07166	Repair Transmissions (Automatic)
AUR13170	Service Final Drive (Drive Line)
AUR13166	Repair Final Drive (Drive Line)
AUR12670	Service Final Drive Assemblies
AUR12666	Repair Final Drive Assemblies
AUR66108	Carry Out Diagnostic Procedures

**ELECTIVES:**

Six (6) electives are to be sourced from any endorsed Industry Training Package related to the enterprise.

Unit Code	Module - Electives
AUR30670	Fuel Systems (Diesel) – Service
AUR04170	Fuel Systems (Gas) – Service
AUR17108	Wheel Alignment
AUR17606	Wheel Balancing
AUR20666	Ignition Systems
AUR23608	Welding
AUR25678	Measuring Equipment
AUR65130	Vehicle / Component Inspection
AUR65508	Vehicle Safety Inspection
AUR22670	Service Air Conditioning Systems

**Total Nominal Hours** **1000**

**Assessment**

Progressive assessments are conducted during and at the completion of the competency. These assessments are conducted both on and off the job.

**Competency Based Training**

A Competency is the culmination of practical skills and the underpinning knowledge appropriate to the skill/task. Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area. A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

**Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

**Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

**Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

**Course Enquiries**

For further course information contact:

**Horsham Campus**

Terry McLean  
School of Manufacturing Services  
Telephone (03) 5362 2621

**SMB Campus - Ballarat**

Grant Petch  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5327 8196

Certificate III in

# Automotive (Vehicle Body – Panel Beating)

National Course Code:

**AUR31699**

## General Information

To be employed as a Motor Mechanic Apprentice, a person must be at least 15 years old and have an educational standard that satisfies the individual employer requirements. Employment is obtained by answering news media advertisements, contacting the local office of Centre Link or other Employment Agencies, or by personally approaching employers who employ Motor Mechanic Apprentices. The Victorian Automotive Chamber of Commerce (V.A.C.C.) conducts aptitude tests on behalf of Employers if requested.

An apprentice Panel Beater may commence schooling at any stage throughout the year, providing the SMB Campus has a position available. An apprentice who has completed the Certificate II in Automotive (Technology) (Vehicle Body Stream) will receive some credits into this apprenticeship course.

## New Apprenticeships

A New Apprenticeship is a training agreement between an employer and an employee, in which the employer provides systematic training and the apprentice agrees to learn the occupation/trade. New Apprenticeships include both traditional trade apprenticeships and traineeships. Note: There may be different conditions, which could apply to New Apprenticeships.

Apprentices can be of any age over 15 and may already hold a qualification. Training can be developed to suit the specific needs of an employer's business with a combination of on and off-the-job programs. At the end of the training period, the apprentice gains a nationally recognised qualification.

## Career Opportunities

Credit will be given for each level of competence achieved. Training done under the new competency system will be nationally recognised.

## Mode of Study and Location

Apprentices can complete all of their training in this course at the SMB Campus in Ballarat. The course uses a self-paced objective based syllabus, which allows the apprentice to progress at his/her own rate.

## Entry Requirements

There are no entry requirements.

## Course Structure

The course uses a self-paced objective based syllabus, which allows the apprentice to progress at his/her own rate and to start the course at any time throughout the year without being disadvantaged.

## Course Content

### Compulsory Common Core

Unit Code	Module Name
AUR70125	Follow Workplace Occupational Health & Safety procedures
AUR70278	Use and maintain workplace tools & equipment
AUR70314	Contribute to workplace communication
AUR70421	Establish relations with customers

### Compulsory Stream

Unit Code	Module Name
AUR18676	Test, Service & replace battery
AUR18708	Carry out minor repairs to electrical circuits/systems
AUR23708	Carry out welding, thermal cutting and heating procedures
AUR26108	Carry out pre-repair operations
AUR26266	Repair body panels
AUR26366	Repair minor structural damage
AUR26367	Replace major welded panels
AUR26508	Carry out vehicle body and underframe alignment
AUR26608	Carry out vehicle measurement
AUR26708	Carry out major sectional repair
AUR26864	Remove & replace vehicle body panels, panel sections & ancillary fittings
AUR26864	Remove & replace/fit protector mouldings, transfers & decals
AUR27164	Remove & replace electrical/ electronic units/assemblies
AUR30203	Apply rust prevention & sound deadening materials
AUR31649	Prepare vehicle/component/equipment for customer use
AUR65116	Determine vehicle damage & recommended repair procedure

### ELECTIVES:

Three (3) electives are to be sourced from any endorsed Industry Training Package related to the enterprise.

**TYPICAL ELECTIVES**

Unit Code	Module Name
AUR17108	Carry out Wheel Alignment Operations
AUR23908	Carry out Thermo Plastic Repair Procedures
AUR24623	Fabricate Components/Equipment
AUR24866	Repair Fibreglass/Composite Material Components
AUR26466	Repair Body Components using Lead Wiping
AUR30508	Carry out Buffing & Burnishing
AUR33363	Remove & Install Rubber Glazed Windscreens
AUR33463	Remove & Install Butyl Sealed Windscreens
AUR29649	Prepare Substrate for Refinishing

**Total Nominal Hours** **1000**

**Assessment**

Progressive assessments are conducted during and at the completion of the competency. These assessments are conducted both on and off the job.

**Competency Based Training**

A Competency is the culmination of practical skills and the underpinning knowledge appropriate to the skill/task. Competency Based Training, is concerned with assisting people to gain specific competencies which are required in the workplace. This course has been designed to meet the particular skills and knowledge appropriate to this vocational area. A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

**Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

**Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

**Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

**Course Enquiries**

For further course information contact:

**SMB Campus - Ballarat**

Grant Petch  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5327 8196

Certificate III in

# Engineering - Fabrication Trade

National Course Code: **MEM30398**

## General Information

'Fabrication' refers to the full scope of work previously known as 'Boilermaking', 'Structural Steel', Metal Fabrication and 'Sheet Metal'. The course covers all aspects of fabrication including the use of hand tools, portable power tools, metal working machinery, the use of all current welding and cutting processes, training in reading and interpretation of working drawings, developmental drawing, marking out and job planning and associated theory required to compliment all tasks.

The Metals and Engineering Award provides for an integrated career structure that allows people in this industry to progress through 14 graded classifications from the Basic Operative Level to the professional Engineer Level. The Metals and Engineering Course is part of an articulated course structure that allows people entering this industry to progress to the highest level with full recognition of studies undertaken at each stage, either on the job, within TAFE Institutes or at Industry Training Centres.

This apprenticeship course, together with "on the job" training, provides the educational and training needs required by the Metal and Engineering Industry Award for Fabrication Tradespersons.

Access to off the job training is available for school leavers or adults who have obtained employment and entered a training contract within a relevant industry. Adults may obtain credit for training or experience gained on the job; this will normally require the successful completion of a competency test at the SMB Campus.

- The more broadly-based training will give greater openings for career progress.
- With the support of their employer, students will be able to select their own program of study. This means they need only achieve skills directly relevant to their work and interests.
- The program has been designed so that students can proceed through the program at their own pace.

## Career Opportunities

Graduates will be qualified to be a Qualified Trades Person/Foreman, Supervisor or Factory Manager.

## Mode of Study and Location

Training is normally conducted off the job at the SMB, Ararat and Horsham Campuses on a block release basis. This course has a nominal 960 hours of training based on a series of industry based competencies, normally taken over 3 years. Units in the first year of the course consist of core and elective units. Core and specialist units are then chosen for the remainder of the course to meet the requirements of the industry in which the apprentice is employed. A C-10 Trade qualification requires a minimum of 96 points of competency.

## Entry Requirements

There are no entry requirements.

## Course Structure

### Elective Units & Specialist Streams

These cover all the various streams formally associated with the Metal Fabrication and Sheetmetal Industry, including Heavy Structural Fabrication, Sheetmetal and Ducting and all Pressure Vessel Welding Certificates. Extra units can be selected from the Electrical or Mechanical Stream as part of this course. A selection of the units are listed below.

The choice of modules is to be made by negotiation between the employer, the TAFE Institute and the student based upon the following conditions:

- 1) Skilling needs of each industry sector.
- 2) Existing resources at each individual TAFE Institute.
- 3) Recognition of competencies previously achieved.

Structure for Certificate III in Engineering "Production" and Trade Qualifications. To obtain a Certificate III Qualification an Apprentice requires 96 points of competency based as follows:

### Foundation units (no points)

MEM1.1FA	Undertake Interactive Workplace Communication
MEM1.2FA	Apply Principles of Occupational Health and Safety
MEM1.3FA	Apply Quality Procedures
MEM1.4FA	Plan to undertake a routine task

### Core Units (20 points)

MEM2.1C12A	Apply Quality Systems
MEM2.2C11A	Organise and Analyse Information
MEM2.3C11A	Operate in a Work Based Team Environment
MEM2.4C11A	Assist in the provision of on the job training
MEM2.5C11A	Measure with graduated devices
MEM2.6C10A	Plan a complete activity
MEM2.7C10A	Perform computations – basic
MEM2.8C10A	Perform computations
MEM2.9C10A	Perform computer operations

### Specialisation units (76 points)

#### Stream Units

At least 40 points worth of units (including their prerequisites) selected from any of the whole specialisation field or specialisation units from:

Production - Assembly, Materials Handling, Quality  
Fabrication - Mechanical, Machining, Maintenance, Diagnostics

#### Specialisation Units

The balance of the 76 points can be made up from any of the specialisation band 'A' units. There are no 'stream' or 'field' restrictions in this group.

### Course Content

#### Modules (Example – more available)

MEM5.5AA	Carry Out Mechanical Cutting
MEM5.7AA	Manual Heating, Thermal Cutting and Gouging
MEM5.8AA	Advanced Manual Thermal Cutting Gouging and Shaping
MEM5.9AA	Automated Thermal Cutting
MEM5.10AA	Undertake Fabrication, Forming, Bending and Shaping
MEM5.11AA	Assemble Fabricated Components
MEM5.15AA	Weld Using Manual Metal Arc Welding Process (MMAW)
MEM5.16AA	Perform Advanced Welding Using Manual Metal Arc Welding (MMAW)
MEM5.17AA	Weld Using Gas Metal Arc Welding Process (GMAW)
MEM5.8AA	Perform Advanced Welding Using Gas Metal Arc Welding Process (GMAW)
MEM5.19AA	Weld Using Gas Tungsten Arc Welding Process (GTAW)
MEM5.21AA	Weld Using Oxyacetylene Welding Process (OAW) Fuel Gas Welding
MEM5.37AA	Geometric Development
MEM9.1AA	Draw and Interpret Sketch
MEM9.2AA	Interpret Technical Drawing
MEM11.11AA	Materials Handling
MEM12.7AA	Mark Off/Out Structural Fabrications and Shapes
MEM18.1AA	Use Hand Tools
MEM18.2AA	Use Power Tools/Hand Held Operation

**Total Nominal Hours**

**960**

### Assessment

Assessment is based on competency testing carried out for each individual unit or in some cases, parts of a unit. Assessment may be carried out on or off the job by negotiation. Every student will be required to achieve a minimum stated standard prior to progressing to the next level. Full national recognition is given for work successfully completed in this course.

### Competency Based Training

Competency Based Training is concerned with assisting people to gain specific required in the workplace.

This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

### Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

### Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

### Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

### Course Enquiries

For further course information contact:

#### Ararat Campus

Kevin Martin  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5355 3021

#### SMB Campus - Ballarat

Ray Schenk  
School of Manufacturing Services – Engineering & Automotive  
Telephone (03) 5327 8140

Certificate IV in

# Engineering - Higher Engineering Trade

National Course Code: **MEM40198**

## General Information

The aim of the course is to provide post-trade training to those who have completed an approved trade training program and who wish to access the career path identified by the Federal Metal Industry Award.

## Career Opportunities

Credits will be given for each level of competence achieved. Training done under the new competency system will be recognised nationally.

## Mode of Study and Location

The SMB and Horsham Campuses will conduct 9 units on a part-time basis over 360 hours (36 points of competency).

## Entry Requirements

Completion of an approved trade training program or equivalent.

## Course Structure/Course Content

### Bank of Units:

Units contained in the National Metal and Engineering Training board bank of modules:

- Electrical/Electronic Stream
- Fabrication Stream
- Mechanical Stream

Units should be chosen in consultation with the relevant Section Manager and/or your employer workplace situation.

A wide variety of units are available including the following:

- Fabrication
- Welding
- CNC Machining
- Fluid Power
- Toolmaking

### Typical units of competency might be:

Unit Code	Module Name
MEM5.20A	Perform Advanced Welding Using Gas Tungsten Arc Welding Process

MEM5.36A	Repair/Replace/Modify Fabrication
MEM5.24B	Perform Welding Supervision
MEM5.25B	Perform Welding/Fabrication Inspection
MEM7.15A	Set NC/CNC Machines/Processes (basic) Create 2D Drawings Using CAD Insert Pipework and Pipework Assemblies Undertake Dogging/Crane Chasing

**Total Nominal Hours** **360**

*These are but a few and may need specific prerequisites.*

## Assessment

### Competency Based Training

Competency Based Training is concerned with assisting people to gain specific competencies that are required in the workplace.

This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent, Competent with Merit or Not Competent by performing set tasks at specified standards, under prescribed conditions.

## Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## Course Enquiries

For further course information contact:

### Ararat Campus

Kevin Martin

School of Manufacturing Services – Engineering &  
Automotive

Telephone (03) 5355 3021

### Horsham Campus

Geoff Bacon or Tom Lawless

School of Manufacturing Services – Engineering &  
Automotive

Telephone (03) 5362 2683

### SMB Campus - Ballarat

Ray Schenk

School of Manufacturing Services

Telephone (03) 5327 8140

Jo Williams

School of Manufacturing Services – Engineering &  
Automotive

Telephone (03) 5327 8117

Certificate III in

# Engineering - Mechanical Trade

National Course Code: **MEM30298**

## General Information

This apprenticeship course, together with "on the job" training, provides the educational and training needs required by the Metal and Engineering Industry Award for Mechanical Tradespersons.

The Metal Industry Award provides for an integrated career structure that allows people in this industry to progress through 14 graded classifications from the Basic Operative Level to the professional Engineer Level. To gain a Certificate III qualification a minimum of 96 units of competency is required.

The Certificate in Engineering is part of an articulated course structure that allows people entering this industry to progress to the highest level with full recognition of studies undertaken at each stage either on the job, within TAFE Institutes or at Industry Training Centres.

Students will benefit from the new program in at least three ways:

- The more broadly-based training will give greater openings for career progress.
- With the support of their employer, students will be able to select their own program of study. This means they need only achieve skills directly relevant to their work and interests.
- The program has been designed so that students can proceed through the program at their own pace.

## Career Opportunities

Credits will be given for each level of competence achieved. Training done under the new competency system will be recognised nationally.

## Mode of Study and Location

This course is provided at the SMB Campus and has a nominal 960 hours of training based on a series of competency units each with a nominal 20 - 40 hours of study, normally taken over 3 years. Units are selected from a broadbase that includes skills common to most people following a career path in this industry. Core and specialist units are then chosen for the remainder

of the course to meet the requirements of the industry in which the apprentice is employed.

## Entry Requirements

Access to off the job training is available for school leavers or adults who have obtained employment and entered a training contract within a relevant industry. Adults may obtain credit for training or experience gained on the job; this will normally require the successful completion of a competency test at the SMB Campus.

## Course Structure

To obtain a Certificate III Qualification 96 points of competency as follows are required:

### Foundation units (no points)

MEM1.1FA, MEM1.2FA, MEM1.3FA, MEM1.4FA.

### Core Units (20 points)

MEM2.1C12A, MEM2.2C11A, MEM2.3C11A,  
MEM2.4C11A, MEM2.5C11A, MEM2.6C10A,  
MEM2.7C10A, MEM2.8C10A, MEM2.9C10A.

### Specialisation units (76 points)

#### Stream Units

At least 40 points worth of units (including prerequisites) selected from any of the whole specialisation field or specialisation units from: Production - Assembly, Materials Handling, Quality Fabrication Mechanical - Machining, Maintenance, Diagnostics

#### **Specialisation Units**

The balance of the 76 points can be made up from any of the specialisation band 'A' units. There are no 'stream' or 'field' restrictions in this group.

The choice of units should be made in consultation between the employer, student and SMB and take account of:

- the skill needs of each industry sector;
- the need to ensure that a broad range of skills are acquired within the 24 nominal units;
- the existing resources at the TAFE Institute or other registered provider.

To achieve a high level of skills early in the training program, specialist units can be delivered before core units and other elective units, subject to necessary pre-requisites.

## Course Content

Unit Code	Modules
MEM1.1FA	Undertake Interactive Workplace Communication
MEM1.2FA	Apply Principles of Occupational Health and Safety

MEM1.3FA	Apply Quality Procedures
MEM1.4FA	Plan to undertake a routine task
MEM2.1C12A	Apply Quality Systems
MEM2.2C11A	Organise and Analyse Information
MEM2.3C11A	Operate in a Work Based Team Environment
MEM2.4C11A	Assist in the provision of on the job training
MEM2.5C11A	Measure with graduated devices
MEM2.6C10A	Plan a complete activity
MEM2.7C10A	Perform computations – basic
MEM2.8C10A	Perform computations
MEM2.9C10A	Perform computer operations
MEM5.5AA	Carry Out Mechanical Cutting
MEM5.7AA	Manual Handling Thermal Cutting and Gouging
MEM7.5AA	Perform General Machining
MEM7.6AA	Perform Lathe Operations
MEM9.1AA	Draw and Interpret Sketch
MEM9.2AA	Interpret Technical Drawing
MEM11.11AA	Manual Handling
MEM12.3AA	Precision Mechanical Measurement
MEM12.6AA	Mark Off/Out (General Engineering)
MEM18.1AA	Use Hand Tools
MEM18.2AA	Use Power Tools/Hand Held Operations
MEM18.3AA	Use Tools for Precision Work
MEM18.4AA	Maintain and Overhaul Mechanical Equipment
MEM18.5AA	Bearings - Fault Diagnosis and Removal
MEM18.6AA	Dismantle/Repair/Replace/ Assemble and Fit Engineering Components
MEM18.7AA	Maintain and Repair Mechanical Drives and Mechanical Transmission Assemblies
MEM18.8AA	Balance Equipment
MEM18.9AA	Levelling and Alignment of Machines and Engineering Components
MEM18.10AA	Equipment Condition Monitoring and Recording
MEM18.18AA	Maintain Pneumatic System Components
MEM18.20AA	Maintain Hydraulic System Components

**Total Nominal Hours**

**960**

## Assessment

### Competency Based Training

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions. Recognition of Current Competency will be considered as a matter of policy.

## Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## Course Enquiries

For further course information contact:

### SMB Campus - Ballarat

Jo Williams

School of Manufacturing Services – Engineering & Automotive

Telephone (03) 5327 8117

Certificate III in

# Engineering - Production Systems

National Course Code: **MEM30198**

## General Information

This course, together with "on the job" training, provides the educational and training needs required by the Metal and Engineering Industry Award for Mechanical Tradespersons.

Access to off the job training is available for school leavers or adults who have obtained employment and entered a training contract within a relevant industry. Adults may obtain credit for training or experience gained on the job; this will normally require the successful completion of a competency test at the SMB Campus.

The Metal Industry Award provides for an integrated career structure that allows people in this industry to progress through 14 graded classifications from the Basic Operative Level to the professional Engineer Level. To gain a Certificate III - Production Systems qualification, a total of 400 hours and a minimum of 32 units of competency is required.

The Certificate III in Engineering - Production Systems is part of an articulated course structure that allows people entering this industry to progress to the highest level with full recognition of studies undertaken at each stage either on the job, within TAFE Institutes or at Industry Training Centres.

Students will benefit from the new program in at least three ways:

- The more broadly-based training will give greater openings for career progress.
- With the support of their employer, students will be able to select their own program of study. This means they need only achieve skills which are directly relevant to their work and interests.
- The program has been designed so that students can proceed through the program at their own pace.

## Career Opportunities

Credits will be given for each level of competence achieved. Training done under the new competency system will be recognised nationally.

## Mode of Study and Location

Units are selected from a Broadbase that includes skills common to most people following a career path in this industry. Core and specialist units are then chosen for the remainder of the course to meet the requirements of the industry in which the student is employed.

## Entry Requirements

There are no entry requirements.

## Course Structure

Structure for Certificate II in Engineering - Production Systems and trade qualifications. To obtain a Certificate III Qualification a student requires 32 points of competency based as follows:

**Foundation units** (All compulsory Foundation Units must be completed)

MEM1.1FA, MEM1.2FA, MEM1.3FA, MEM1.4FA.

**Core Units** (Choose from the \* units below)

MEM2.1C12A, MEM2.2C11A, MEM2.3C11A,  
MEM2.4C11A, MEM2.5C11A, MEM2.6C10A,  
MEM2.7C10A, MEM2.8C10A, MEM2.9C10A.

30 points in units drawn from Specialisation Band A to be selected from units other than those shown in Attachment 1 from the Policy Document.

## Stream Units

At least 30 points worth of units (including their prerequisites) selected from any of the specialisation fields other than those shown in Attachment 1 of the Policy Document. Point allocation can be discussed with the Program Manager

PRODUCTION - Assembly, Materials Handling, Quality

FABRICATION - Mechanical, Machining, Maintenance, Diagnostics

## Specialisation Units

The balance of the 30 points can be made up from any of the specialisation Band A units. There are no 'stream' or 'field' restrictions in this group.

The choice of units should be made in consultation between the employer, student and SMB and take account of:

- the skill needs of each industry sector;
- the need to ensure that a broad range of skills are acquired within the 24 nominal units;
- the existing resources at the TAFE Institute or other registered provider.

To achieve a high level of skills early in the training program, specialist units can be delivered before core

units and other elective units, subject to necessary pre-requisites.

## Course Content

### Modules

#### Foundation Units

Unit Code	Module Name
MEM1.1FA	Undertake Interactive Workplace Communication
MEM1.2FA	Apply Principles of Occupational Health and Safety
MEM1.3FA	Apply Quality Procedures
MEM1.4FA	Plan to undertake a routine task

#### Core Units

Unit Code	Module Name
MEM2.1C12A	Apply Quality Systems
MEM2.2C11A	Organise and Analyse Information
MEM2.3C11A	Operate in a Work Based Team Environment
MEM2.4C11A	Assist in the provision of on the job training
MEM2.5C11A	Measure with graduated devices
MEM2.6C10A	Plan a complete activity
MEM2.7C10A	Perform computations – basic
MEM2.8C10A	Perform computations
MEM2.9C10A	Perform computer operations

**Total Nominal Hours**

**400**

### Streams

Assembly  
 Casting and Moulding  
 Fabrication  
 Forging  
 Machine and Process Operation  
 Surface Finishing  
 Drawing, Drafting and Design  
 Installation and Commissioning  
 Materials Handling  
 Measurement  
 Occupational Health and Safety  
 Planning  
 Quality  
 Communication  
 Training  
 Maintenance and Diagnostics

- Mechanical
- Engines, Mobile Plant and Equipment
- Refrigeration and Air-conditioning
- Control Instrumentation and Electronics
- Electrical
- Fluid Power

## Assessment

### Competency Based Training

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions. Recognition of

Current Competency will be considered as a matter of policy.

## Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## Course Enquiries

For further course information contact:

### SMB Campus - Ballarat

Jo Williams  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5327 8117

Certificate II in

# Engineering – Production Technology

National Course Code: **MEM20298**

## General Information

The Metal Industry Award provides for an integral career structure that allows people in this industry to progress through 14 graded classifications from the Basic Operative Level to Professional Engineer Level. To gain a Certificate II – Production Technology qualification, a minimum of 64 units of competency is required.

The Certificate II in Engineering – Production Technology is part of an articulated course structure that allows people entering this industry to progress to the highest level with full recognition of studies undertaken at each stage either on the job, within TAFE Institutes or at Industry Training Centres.

Students will benefit from the new program in at least three ways:

- The more broadly-based training will give greater openings for career progress.
- With the support of their employer, students will be able to select their own program of study. This means they need only achieve skills which are directly relevant to their work and interests.
- The program has been designed so that students can proceed through the program at their own pace.

## Career Opportunities

Credits will be given for each level of competence achieved. Training done under the new competency system will be recognised nationally.

## Mode of Study and Location

Units are selected from a Broadbase that includes skills common to most people following a career path in this industry. Core and specialist units are then chosen for the remainder of the course to meet the requirements of the industry in which the student is employed.

This program will also be conducted at the Horsham and Ararat Campuses on a full-time basis involving approximately 400 hours training, consisting of 18 competencies and a negotiable 10 days of work placement activities/projects.

## Entry Requirements

There are no entry requirements, although a minimum educational level of Year 9 is recommended.

## Course Structure

Structure for Certificate III in Engineering – Production Technology and Trade Qualifications. To obtain a Certificate II qualification, a student requires 64 points of competency based as follows:

### Foundation units (All compulsory foundation units must be completed)

MEM1.1FA, MEM1.2FA, MEM1.3FA, MEM1.4FA.

### Core Units (Choose from the following)

MEM2.1C12A, MEM2.2C11A, MEM2.3C11A,  
MEM2.4C11A, MEM2.5C11A, MEM2.6C10A,  
MEM2.7C10A, MEM2.8C10A, MEM2.9C10A.

54 Points in units drawn from Specialisation Band A to be selected from units other than those shown in Attachment 1 from the Policy Document.

### Stream Units

Point allocation can be discussed with the Program Manager.

PRODUCTION – Assembly, Materials Handling, Quality

FABRICATION – Mechanical, Machining, Maintenance Diagnostics

### Specialisation units

The choice of units should be made in consultation between the employer, student and SMB and take account of:

- the skill needs of each industry sector;
- the need to ensure that a broad range of skills are acquired within the 24 nominal units;
- the existing resources at the TAFE Institute or other registered provider.

To achieve a high level of skills early in the training program, specialist units can be delivered before core units and other elective units, subject to necessary pre-requisites.

## Course Content

### Module

#### Foundation Units

MEM1.1FA	Undertake Interactive Workplace Communication
MEM1.2FA	Apply Principles of Occupational Health and Safety
MEM1.3FA	Apply Quality Procedures
MEM1.4FA	Plan to undertake a routine task

#### Core Units

MEM2.1C12A	Apply Quality Systems
MEM2.2C11A	Organise and Analyse Information

MEM2.3C11A	Operate in a Work Based Team Environment
MEM2.4C11A	Assist in the provision of on the job training
MEM2.5C11A	Measure with graduated devices
MEM2.6C10A	Plan a complete activity
MEM2.7C10A	Perform computations – basic
MEM2.8C10A	Perform computations
MEM2.9C10A	Perform computer operations

**Total Nominal Hours** **400**

#### **Streams**

Assembly  
 Fabrication  
 Machine and Process Operation  
 Drawing, Drafting and Design  
 Maintenance and Diagnostics
 

- Mechanical
- Engines, Mobile Plant and Equipment
- Fluid Power

#### **Assessment**

##### **Competency Based Training**

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions. Recognition of Current Competency will be considered as a matter of policy.

#### **Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

#### **Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

#### **Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

#### **Course Enquiries**

For further course information contact:

##### **Ararat Campus**

Kevin Martin  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5355 3021

##### **Horsham Campus**

Kevin Martin  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5355 3021

Allan Jolley  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5362 2621

Tom Lawless  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5362 2683

##### **SMB Campus - Ballarat**

Jo Williams  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5327 8117

##### **Stawell Campus**

Kevin Martin  
 School of Manufacturing Services – Engineering & Automotive  
 Telephone (03) 5355 3021

Certificate I in

# Engineering Technology

National Course Code: **11409VIC**  
State Code: **2106AIC**

## General Information

This course aims to develop competencies in the Australian Qualifications Framework Level 1 (AQF 1).

This course is specially designed for the metal and engineering industry as a broad based skilling program and consists of nine core modules and three elective modules. It is not stream specific.

## Career Opportunities

Credits will be given for each level of competence achieved. Training done under the new system will be recognised nationally.

## Mode of Study and Location

This program is conducted at the SMB, Horsham and Ararat Campuses on a full-time basis involving 400 hours training, consisting of 10 equivalent modules plus at least 10 days of work placement activities/projects.

The program is broken up into a number of small units of learning. This makes it more flexible.

## Competency – Based

Given tasks will be performed within a module to a set standard to ensure competency in the skills required by that module.

## Broad Based

The program ensures that a sound basis in skills important to the industry as a whole is given.

## Entry Requirements

The Certificate I in Engineering is designed for participants with a minimum educational background of Year 9.

## Course Structure

Trade training in the future will be in one of three broad engineering streams:

- Mechanical
- Electrical/Electronic
- Fabrication

The Certificate I in Engineering includes a number of broad based modules, which are common to each stream. This gives a greater breadth of skills before

allowing for specialisation. The new Classification Structure in the Metal Industry Award no longer provides for specific trade classifications such as Fitter, Welder or Electrician.

These positions will in future be classified as either a Mechanical, Fabrication or Electrical/Electronic engineering tradesperson with a broader job description. Trade training will move towards being competency based, rather than time based.

When entering the industry as an apprentice, trainee, or production employee, some broad based training will be done as well as specialising in fabrication, mechanical or electrical/electronics.

## Course Content

### Core Modules

Unit Code	Module Name
EPC173	Functional Mathematics
NBB02	Occupational Health and Safety
NBB09	Welding and Thermal Cutting
NBB01	Communications and Industrial Relation
NBB07	Hand and Power Tools
NBB05	Quality Concepts
NBB06	Machining
NBB12	Engineering Drawing Interpretation
NBB14	Introduction to Electricity & Electronics

**Total Nominal Hours** **400**

## Assessment

### Competency Based Training

Competency Based Training is concerned with assisting people to gain specific competencies that are required in the workplace.

This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent, Competent with Merit or Not Competent by performing set tasks at specified standards, under prescribed conditions.

## Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## **Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## **Course Enquiries**

For further course information contact:

### **Ararat Campus**

Kevin Martin  
School of Manufacturing Services  
Telephone (03) 5355 3021

### **Horsham Campus**

Geoff Bacon  
School of Manufacturing Services – Engineering &  
Automotive  
Telephone (03) 5362 2600

### **SMB Campus – Ballarat**

Jo Williams  
School of Manufacturing Services – Engineering &  
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### **Stawell Campus**

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Diploma of

# Engineering Technology

National Course Code: **20019VIC**

## General Information

The Diploma of Engineering Technology provides high level training for the engineering industry. Under the Federal Metal Industry Award Diploma of Engineering Technology affords workers the opportunity to undertake structured training and assists them to progress to the C5 level of the award.

The Diploma of Engineering Technology provides the technical skills and knowledge to design, analyse, control processes and manage resources using the technical principles of new and existing technologies. These skills may be applied in design, testing, inspection, quality control, manufacturing operations, field work, research and development and, with experience, manage such work.

A Diploma of Engineering Technology will be awarded to a student who satisfactorily completes studies in specialist modules in a specific study path. The minimum requirement is for a total of 15 equivalent full modules. One module has a nominal 40 hours of study. (Some modules may be half modules, others are 1½ modules).

## Career Opportunities

The Diploma of Engineering Technology has been designed to satisfy the C5 classification of the Federal Metal Trades Award.

The Advanced Diploma of Engineering Technology has been designed to satisfy the C3 classification of this award.

Articulation to Diploma or Degree courses at TAFE or institutions of higher education is also being negotiated.

## Mode of Study and Location

This course is provided at the SMB Campus on a full-time basis for one year or part-time equivalent.

A Diploma of Engineering Technology will be awarded to those who successfully complete the first year of the Advanced Diploma of Engineering Technology, which is equivalent to 15 modules (600 hours) of study.

Some modules will be offered each year for those students who prefer to undertake the whole course, or selected modules on a part-time basis.

The course also has potential for off campus/flexible delivery.

## Entry Requirements

The majority of students entering the Diploma of Engineering Technology are expected to have one or a combination of the following educational backgrounds:

- Certificate III in Engineering
- Year 12 education
- Industrial training/experience

## Course Structure

All modules are chosen from a list of National modules to satisfy the specific study area chosen by the student.

In some cases it will be possible to obtain a Diploma of Engineering Technology on completion of 15 full modules after one year of full-time study. For those students who enter from a Trade or EPC course it will be essential to complete 15 modules for the Diploma of Engineering Technology in addition to those previously studied.

## Course Content

### YEAR 1

Unit Code	Module Name
EA001	Calculus
EA002	Maths A
EA003	Maths B
EA010	Material Science
EA040	O H & S for Supervisors
EA050	Engineering Computing
EA060	Engineering Design Concepts
EA061	Engineering Graphics
EA080	Engineering Measurement
EA701	Engineering Drawing (Detail)
EA740	Workshop Practices Fabrication
EA741	Processes Machine Shop
EA772	Introduction Dynamics
EA780	Design for Manufacture
EA790	Manufacturing Processes
EA840	Introductory Strength of Materials
EA859	Statics
NM06	Computer Aided Drafting A
NM09	CNC Machining
NM12	CNC Milling 1
EB650	Material for Engineering

### Total Nominal Hours

**600**

Included in the above subject listing are Bridging Units which are available for study to applicants other than 2002 VCE students who do not have the necessary prerequisite studies.

Other streams available are:

- Fabrication
- Structural
- Civil

## **Assessment**

### **Competency Based Training**

Competency Based Training is concerned with assisting people to gain specific competencies that are required in the workplace.

These courses have been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

## **Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## **Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## **Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## **Course Enquiries**

For further course information contact:

### **SMB Campus - Ballarat**

Jo Williams

School of Manufacturing Services – Engineering &  
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Telephone (03) 5327 8117

Advanced Diploma of

# Engineering Technology

*Civil Stream*

National Course Code: **20020VIC**

### General Information

The Advanced Diploma of Engineering contains National Modules, which provide high level training for the engineering industry at the engineering associate level. Under the Federal Metal Industry Award the Advanced Diploma affords workers the opportunity to undertake structured training and assists them to progress to the C3 level of the award.

This course provides the necessary academic background and practical training for middle level employment in the engineering field, in such positions as technical support staff for professional staff in industry.

A Advanced Diploma in Engineering will be awarded to a student who satisfactorily completes studies in core and specialist modules in a specific study path. The minimum requirement is for a total of 30 equivalent full modules. One module has a nominal 40 hours of study. (Some modules may be half modules, others are 1½ modules).

### Career Opportunities

Articulation to Diploma or Degree courses at institutions of Higher Education exist.

### Mode of Study and Location

This course is offered on a full-time basis for two years.

Some modules will be offered each year for those students who prefer to undertake the whole course, or selected modules on a part-time basis.

### Flexible Delivery/Off-Campus Study

The units marked with an asterisk (\*) on this course leaflet are available in an off-campus study mode. Equivalent units are available in an off-campus study mode for those marked #. (A materials fee is payable per unit). For further information contact the Off-campus Centre on (03) 5327 8224.

### Entry Requirements

Current Year 12 students - satisfactory completion of the VCE.

All other applicants will be considered for eligibility on the basis of previous life experience, work history and educational background.

### Course Structure

The course consists of a minimum of 30 full modules and must include six core generic modules.

All modules are chosen from a list of National modules to satisfy the specific study area chosen by the student.

An Diploma will be awarded to those who successfully complete the first year of the Advanced Diploma, which is equivalent to 15 modules of study. If an Advanced Diploma is an extension of a previously studied Diploma, 15 additional modules only are required.

### Course Content

Unit Code	Module Name - YEAR 1
EA859	Statics
EA804	Introductory Strength of Materials
EA002	Engineering Maths A
EA003	Engineering Maths B
EA040	OH&S for Supervisors
EA050	Engineering Computing
NM06	CAD A
EA065	CAD B
EA061	Engineering Graphics
EA810	Drafting Pipelines
EA813	Drafting Roads 1
EA820	Surveying Measurement 2
EA856	Introduction to Road Engineering
EA860	Surveying Computations
EA861	Surveying Measurement 1
EA029	Team Building Communication *
EA027	Presenting Reports *

**Total Nominal Hours** **600**

Unit Code	Module Name - YEAR 2
Modules to be selected from:	
EA071	Planning Estimating and Costing
EA850	Civil Construction Techniques A
EA851	Civil Construction Techniques B
EA852	Engineering Hydrology
EA066	CAD C
EA067	CAD D
EA814	Drafting Roads 2
EA855	Hydraulic Mechanics
EA857	Pipe and Channel Flow
EA858	Site Investigation
EA061	Managing CAD Utilities
EB850	Civil Estimating
EB851	Environment Engineering
EB854	Stormwater Drainage
EB858	Waste Water Engineering
EB859	Water Engineering

EB860	Geometric Road Design
EB861	Engineering Projects A
EB862	Engineering Projects B
EB863	Engineering Projects C
EB864	Engineering Projects D
EB865	Municipal Design
EB030	Advanced Quality Concepts
EA060	Engineering Design Concepts

**Total Nominal Hours** **600**

## **Assessment**

### **Competency Based Training**

Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace.

This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

## **Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## **Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## **Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## **Course Enquiries**

For further course information contact:

### **SMB Campus - Ballarat**

Ross McCallum

School of Manufacturing Services – Engineering & Automotive

Telephone (03) 5327 8244

Advanced Diploma of

# Engineering Technology

*Mechanical Design & Manufacturing Stream*

National Course Code: **20020VIC**

**General Information**

The Advanced Diploma of Engineering (Mechanical Design and Manufacturing Streams) provides a high level of training for the engineering industry up to the engineering associate level.

**Career Opportunities**

Graduates may gain middle level employment positions in many engineering fields such as drafting, surveying, road and civil construction.

**Mode of Study and Location**

This course is provided 2 years full-time or part-time equivalent, or flexible delivery (some units) at SMB Campus.

**Entry Requirements**

Satisfactory completion of VCE, or Mature Age entry, with suitable life experience, work history and educational background.

**Course Structure**

30 full modules (40 hours) chosen from a list of National modules. A Diploma will be awarded to those who successfully complete the first year, which is 15 modules from an appropriate stream.

**Course Content**

30 modules chosen from the list supplied by the Mechanical/Civil Engineering section.

Unit Code	Module Name - YEAR 1
EA001	Calculus
EA002	Maths A
EA003	Maths B
EA010	Material Science
EA040	O H & S for Supervisors
EA050	Engineering Computing
EA060	Engineering Design Concepts
EA061	Engineering Graphics
EA080	Engineering Measurement
EA701	Engineering Drawing (Detail)
EA740	Workshop Practices Fabrication
EA741	Processes Machine Shop
EA772	Introductory Dynamics
EA780	Design for Manufacture
EA790	Manufacturing Processes
EA840	Introductory Strength of Materials

EA859	Statics
NM06	Computer Aided Drafting A
NM09	CNC Machining
NM10	CNC Turning 1
NM12	CNC Milling 1
EB650	Material for Engineering

**Total Nominal Hours 600**

Unit Code	Module Name - YEAR 1
EA065	Computer Aided Drafting B
EA066	Computer Aided Drafting C
EA067	Computer Aided Drafting D
EA702	Engineering Drawing (Development & Pipe)
EA703	Engineering Drawing (Structural & Mechanical)
EA711	Mechanical Drive Components
EB020	Report Writing & Presentation Skills
EB030	Advanced Quality Concepts
EB031	Quality Management
EB071	Project Management
EB701	Advanced Machine Design
EB702	Dynamics of Industrial Machines
EB703	Machine Design
EB704	Mechanical Design
EB705	Project Mechanical Design Synthesis
EB771	Advanced Dynamics
EB840	Advanced Strength of Materials
NM81	CAM1
NM82	CAM2

**Total Nominal Hours 600**

**Assessment**

**Competency Based Training**

A student will be assessed as Competent or Not Competent by performing set tasks at specified standards, under prescribed conditions.

**Fees**

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

**Recognition of Prior Learning**

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

### **Application Information**

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

### **Course Enquiries**

For further course information contact:

#### **SMB Campus - Ballarat**

Jo Williams

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Automotive

Telephone (03) 5327 8117

# Welding Certification

AS1796, Certificate 1 - 9

**This course consists of modules from the Diploma of Engineering Technology**

National Course Code **20019VIC**

## General Information

This course is conducted within the Diploma of Engineering Technology.

## Career Opportunities

Certificate IV in Engineering - Pressure Vessel Welder/Welding Supervisor.

## Mode of Study and Location

This course is conducted on and off campus at the SMB, Horsham and Ararat Campuses.

## Entry Requirements

The majority of students entering the Welding Certificate AS 1796 are expected to have one or a combination of the following educational backgrounds:

- Certificate III in Engineering - Fabrication/Mechanical Trade
- Certificate III in Engineering Production - Technology / Systems
- Approved Industrial training and experience
- Mature age entry
- Pre-requisite modules in the selected stream

## Course Structure

National Metal and Engineering Competency Standards and / or modules leading to AS 1796 code requirements.

## Course Content

Learning outcomes and successful completion of the relevant competency standards and/or modules.

Module Code

- NF65 Welding Certificate 1 (MMAW of LCS)
- NF66 Welding Certificate 2 (MMAW of LCS Pipe)
- NF67 Welding Certificate 3 (MMAW of Alloy Steel)
- NF98 Welding Certificate 4 (MMAW of Alloy Steel Pipe)
- NF69 Welding Certificate 5 (GTAW, MMAW, Alloy Steel Pipe)
- NF70 Welding Certificate 6 (Fuel Gas Welding)
- NF71 Welding Certificate 7 (Gas Tungsten Arc Welding)

NF72 Welding Certificate 8F/8G (Gas Metal Arc Welding)

NF73 Welding Certificate 9 (Automatic Welding/Submerged Arc Welding)

## Assessment

Assessment is based on competency testing carried out for each individual unit or in some cases part of a unit. Every student will be required to achieve a minimum standard prior to progressing to the next level. Full national recognition is given for work successfully completed in this course. All assessments are to AS 1796 standards.

Competency Based Training is concerned with assisting people to gain specific competencies required in the workplace.

This course has been designed to meet the particular skills and knowledge appropriate to this vocational area.

A student will be assessed as Competent or Not Competent by performing set tasks to pre-determined standards, under prescribed conditions.

A Certificate endorsed by the "Welding Technology Institute of Australia (W.T.I.A) can be applied for on satisfactory completion of, the applicable practical examination and evidence of 'on the job' training and experience as prescribed in AS. 1796.

## Fees

Enrolment fees are payable at the time of enrolment. For further information a Fees and Charges leaflet is available from the Student Centre.

## Recognition of Prior Learning

If what you have learned at work, from other courses, from life experience or training provided at work is relevant to this course, you may be entitled to gain subject credits or exemptions. For further details contact the staff listed under 'Course Enquiries'.

## Application Information

Students seeking a place in this course should contact the staff listed under 'Course Enquiries' to obtain information and/or make an appointment for interview.

All applicants must complete an enrolment form and pay their fees at the Student Centre before the enrolment process is complete. All enrolments must first be approved by the relevant department.

## **Course Enquiries**

For further course information contact:

### **Ararat Campus**

Kevin Martin

School of Manufacturing Services – Engineering &  
Automotive

Telephone (03) 5355 3021

### **Horsham Campus**

Geoff Bacon

School of Manufacturing Services – Engineering &  
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### **SMB Campus - Ballarat**

Ray Schenk

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