



## AUTOMOTIVE, ENGINEERING AND SURVEYING COURSES



Engineering is a growing global industry. TAFE International Western Australia (TIWA) has a broad range of courses that you can choose to study such; as automotive technology, civil and structural engineering, electrical engineering, mechanical engineering and surveying. If this industry is your career choice, then TIWA has got you covered.



“The best thing about my course is the hands on training and also the modern facilities and equipment. It is a very conducive environment for international students to study. It really helps me to be able to receive a high quality engineering education from TIWA. I can experience things that I never had the opportunity to do in my life, especially the hands on training. It gives me the skills to learn new things and not only learn theories. TIWA provides a globally accredited education that assists students to harness their skills and potential to be job ready in the future.”


**John Erick Flores | Philippines**

MEM50212 Advanced Diploma of Engineering


# AUTOMOTIVE TECHNOLOGY

Year 11 equivalent


**AUR30620 Certificate III in Light Vehicle Mechanical Technology**

 12 months


**AUR40216 Certificate IV in Automotive Mechanical Diagnosis**

 six months

**AUR50216 Diploma of Automotive Technology**

 six months

All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated. Equivalent to Australian Year 11 with a pass result in mathematics is required for entry into this course.

 **UniPathways** — Start your studies at TAFE then continue to university with a UniPathway.

## AUR30620 Certificate III in Light Vehicle Mechanical Technology

TAFE ID: BGA5 | CRICOS code: 103611E



### Why choose this course?

Enter the automotive service and repair industry with this qualification. This course teaches you a broad range of skills that can be performed on light vehicles such as how to inspect and service engines; how to test, charge and replace batteries; and how to jump start vehicles and carry out general servicing operations using specific tools and equipment.

You will also gain skills to inspect, diagnose, service or repair various components of light vehicles such as hydraulic brakes, steering and suspension systems, automotive electrical systems and circuits, clutch systems, vehicle drive shafts, manual and automatic transmissions, ignition and starting systems, cooling systems, emission control systems and fuel systems.

As part of this course you will be supplied with personal protective clothing and equipment such as uniforms and industry approved footwear. These items will be purchased by the college on your behalf, for you to keep. The cost of these items is covered as part of the resource fees charged by the college. There is no need for you to pre-purchase these items before you commence the course.

International students cannot study this course as an indentured apprentice. The course is delivered in a simulated work environment and registration as an apprentice is not available to international students.

Colleges	February intake	July intake
South Metropolitan TAFE Carlisle campus		
South Metropolitan TAFE Kwinana campus		

### Course units

To achieve this qualification, you must demonstrate competency in 36 units comprising:

- » 20 core units; and
- » 16 electives.

### Core units

- » AURAEA002 Follow environmental and sustainability best practice in an automotive workplace

- » AURASA102 Follow safe working practices in an automotive workplace
- » AURETR112 Test and repair basic electrical circuits
- » AURETR123 Diagnose and repair spark ignition engine management systems
- » AURETR125 Test, charge and replace batteries and jump-start vehicles
- » AURETR129 Diagnose and repair charging systems
- » AURETR130 Diagnose and repair starting systems
- » AURETR131 Diagnose and repair ignition systems
- » AURLTB103 Diagnose and repair light vehicle hydraulic braking systems
- » AURLTD104 Diagnose and repair light vehicle steering systems
- » AURLTD105 Diagnose and repair light vehicle suspension systems
- » AURLTE102 Diagnose and repair light vehicle engines
- » AURLTZ101 Diagnose and repair light vehicle emission control systems
- » AURTTA104 Carry out servicing operations
- » AURTTA118 Develop and carry out diagnostic test strategies
- » AURTTB101 Inspect and service braking systems
- » AURTTTC103 Diagnose and repair cooling systems
- » AURTTE104 Inspect and service engines
- » AURTTF101 Inspect and service petrol fuel systems
- » AURTTK102 Use and maintain tools and equipment in an automotive workplace

### Electives offered at all campuses

- » AURAF103 Communicate effectively in an automotive workplace
- » AURATA001 Identify basic automotive faults using troubleshooting processes
- » AURETK002 Use and maintain electrical test equipment in an automotive workplace
- » AURETR010 Repair wiring harnesses and looms
- » AURETR103 Identify automotive electrical systems and components
- » AURETR115 Inspect, test and service batteries
- » AURLTA101 Identify automotive mechanical systems and components
- » AURTTA105 Select and use bearings, seals, gaskets, sealants and adhesives
- » AURTTCC001 Inspect and service cooling systems
- » AURTTDD002 Inspect and service steering systems
- » AURTTDD004 Inspect and service suspension systems
- » AURTTFF102 Inspect and service diesel fuel injection systems
- » AURTTQ001 Inspect and service final drive assemblies
- » AURTTQ103 Inspect and service drive shafts
- » AURTTX102 Inspect and service manual transmissions
- » AURTTX103 Inspect and service automatic transmissions

### South Metropolitan TAFE Carlisle campus

**Tuition fee** \$18,324 | **Resource fee** \$3,468 | **Materials fee** \$600  
**Duration** two semesters (12 months)

#### Learning resources, facilities and equipment

Learning resources may include access to textbooks, internet links, YouTube clips, electronic and paper based vehicle service manuals and scan tool code references.

Facilities and equipment may include the use of automotive servicing equipment to service manual and automatic transmissions, cooling systems, exhaust systems, brakes and general engine repairs and reconditioning.

Mechanical tools and equipment may include engine management tools and diagnostic equipment in the simulated automotive mechanic workshops situated on campus.

### South Metropolitan TAFE Kwinana campus

**Tuition fee** \$18,324 | **Resource fee** \$3,468 | **Materials fee** \$600  
**Duration** two semesters (12 months)

#### Learning resources, facilities and equipment

Learning resources may include access to textbooks, internet links, YouTube clips, electronic and paper based vehicle service manuals and scan tool code references.

Facilities and equipment may include the use of automotive servicing equipment to service manual and automatic transmissions, cooling systems, exhaust systems, brakes and general engine repairs and reconditioning.

Mechanical tools and equipment may include engine management tools and diagnostic equipment in the simulated automotive mechanic workshops situated on campus.



#### Work placement information

There is no work placement requirement for this course.

#### Career opportunities

» Light vehicle mechanical technician



## AUR40216 Certificate IV in Automotive Mechanical Diagnosis


TAFE ID: BAB6 | CRICOS code: 091648F



### Why choose this course?

Fine tune your career in the automotive, service and repair industry by completing this qualification. This course covers the skills required to perform advanced diagnostic repairs on light vehicles.

You will gain the skills and knowledge to diagnose complex faults in petrol engines, electronic spark ignition engine management systems, braking systems and test engines.

During this course you will analyse and service power supplies in hybrid and electric vehicles, repair transmissions and drive assemblies, manage environmental compliance and comply with workplace safety and health legislation.

It is important to note that international students are not eligible for an automotive trade certificate due to visa restrictions. For more information, please visit [tradesrecognitionaustralia.gov.au](http://tradesrecognitionaustralia.gov.au) .

Colleges	February intake	July intake
South Metropolitan TAFE Carlisle campus		
South Metropolitan TAFE Kwinana campus		

### Course units

To achieve this qualification, you must demonstrate competency in 10 units comprising:

- » one core unit; and
- » nine electives.

### Core unit

- » AURTTA021 Diagnose complex system faults

### Electives offered at all campuses

- » AURAMA003 Conduct information sessions in an automotive workplace
- » AURETH011 Depower and reinitialise hybrid electric vehicles
- » AURETRO37 Diagnose complex faults in light vehicle safety systems
- » AURLTB104 Diagnose complex faults in light vehicle braking systems
- » AURLTE104 Diagnose complex faults in light vehicle petrol engines
- » AURMTE001 Test engines using a dynamometer
- » AURTTA026 Diagnose complex faults in electronic over hydraulic systems
- » AURTTA125 Diagnose complex faults in vehicle integrated stability control systems
- » AURTTR101 Diagnose complex faults in engine management systems

### South Metropolitan TAFE Carlisle campus

**Tuition fee** \$9,162 | **Resource fee** \$1,530 | **Materials fee** \$125  
**Duration** one semester (six months)

### Learning resources, facilities and equipment

Learning resources may include access to textbooks, internet links, YouTube clips, electronic and paper based vehicle service manuals and scan tool code references.

Facilities and equipment may include the use of automotive servicing equipment to service manual and automatic transmissions, cooling systems, exhaust systems, brakes and general engine repairs and reconditioning.

Mechanical tools and equipment may include engine management tools and diagnostic equipment in the simulated automotive mechanic workshops situated on campus.

### South Metropolitan TAFE Kwinana campus

**Tuition fee** \$9,162 | **Resource fee** \$1,530 | **Materials fee** \$125  
**Duration** one semester (six months)

### Learning resources, facilities and equipment

Learning resources may include access to textbooks, student workbooks, internet links, YouTube clips, electronic and paper based vehicle service manuals and scan tool code references.

Facilities and equipment may include the use of simulated automotive mechanical workshops situated on campus, and automotive servicing equipment.

### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Automotive master technician
- » Service technician

# AUR50216 Diploma of Automotive Technology

TAFE ID: BAE1 | CRICOS code: 091696J



## Why choose this course?

Embark on a dynamic career in the automotive technology field. Get hands on with our practical training to diagnose, analyse, evaluate, design and modify automotive electrical and mechanical systems.

You will gain the skills to identify faults in braking systems, fuel systems, transmission and driveline systems and steering and suspension systems, and decide on the best course of action to repair these issues using environmentally sustainable work practices. On completion you will also be able to develop and document specifications and procedures, and overhaul engines and associated engine components.

Completing this course will give you the knowledge and some of the skills of an automotive mechanic, however you will not receive a trade certificate or be able to work as a fully qualified mechanic without achieving the provisional skills assessment requirements of Trades Recognition Australia. For more information, please visit [tradesrecognitionaustralia.gov.au](http://tradesrecognitionaustralia.gov.au).

Colleges	February intake	July intake
South Metropolitan TAFE Carlisle campus		■
South Metropolitan TAFE Kwinana campus	■	



## Course units

To achieve this qualification, you must demonstrate competency in 12 units comprising:

- » one core unit; and
- » 11 electives.



## Core unit

- » AURFA007 Develop and document specifications and procedures



## Electives offered at all campuses

- » AURFA006 Conduct research and present technical reports
- » AURETA002 Analyse and evaluate electrical and electronic faults in body management systems
- » AURETA003 Analyse and evaluate electrical and electronic faults in monitoring and protection systems
- » AURETE001 Analyse and evaluate electrical and electronic faults in engine management systems
- » AURETR034 Develop and apply electrical system modifications
- » AURETX001 Analyse and evaluate electrical and electronic faults in driveline management systems
- » AUURLT002 Analyse and evaluate faults in light vehicle braking systems
- » AUURLTE003 Analyse and evaluate faults in light vehicle engine and fuel systems
- » AUURLTE105 Diagnose complex faults in light vehicle diesel engines
- » AUURLTQ003 Analyse and evaluate faults in light vehicle transmission and driveline systems
- » AURTNA001 Estimate and quote automotive vehicle or machinery modifications

## South Metropolitan TAFE Carlisle campus

**Tuition fee** \$9,162 | **Resource fee** \$1,224 | **Materials fee** \$125  
**Duration** one semester (six months)

### Learning resources, facilities and equipment

Learning resources may include access to textbooks, student workbooks, internet links, YouTube clips, electronic and paper based vehicle service manuals and scan tool code references.

Facilities and equipment may include the use of simulated automotive mechanical workshops situated on campus, and automotive servicing equipment.

## South Metropolitan TAFE Kwinana campus

**Tuition fee** \$9,162 | **Resource fee** \$1,224 | **Materials fee** \$125  
**Duration** one semester (six months)

### Learning resources, facilities and equipment

Learning resources may include access to textbooks, student workbooks, internet links, YouTube clips, electronic and paper based vehicle service manuals and scan tool code references.

Facilities and equipment may include the use of simulated automotive mechanical workshops situated on campus, and automotive servicing equipment.



## Work placement information

There is no work placement requirement for this course.




## Career opportunities

- » Automotive diagnostic technician
- » Automotive technician
- » Service technician


# CIVIL AND STRUCTURAL ENGINEERING

Year 10/11 equivalent


MEM30522 Certificate III in Engineering - Technical

 six months

52889WA Diploma of Civil and Structural Engineering


 12 months

52873WA Advanced Diploma of Civil and Structural Engineering


 12 months

Year 12 equivalent

52889WA Diploma of Civil and Structural Engineering

 12 months


52873WA Advanced Diploma of Civil and Structural Engineering

 12 months

All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated.

Students commencing at the diploma level entry point are required to have equivalent to Australian Year 12, with a pass result in Year 11 mathematics.

Equivalent to Australian Year 11 with a pass in mathematics is required for entry into the certificate III level course at North Metropolitan TAFE.

 **UniPathways** — Start your studies at TAFE then continue to university with a UniPathway.

## MEM30522 Certificate III in Engineering - Technical

TAFE ID: BIV7 | CRICOS code: 112000B





### Why choose this course?

Start your career in engineering drafting, or as an engineering associate, with this entry level qualification.

During this six month course you will become familiar with computer-aided design (CAD) packages, AutoCAD and how to set out engineering drawings according to Australian Standards.

You will also participate in hands on workshop projects to introduce general engineering concepts, which are essential for further study at the diploma level. These projects will help develop your understanding of how drawings are transformed into buildings and manufactured items. You will also gain skills in modern office practices, communication, safety, quality controls, basic calculations and sustainability concepts.

On completion of this course you can choose to study further in a number of fields including civil construction design, civil and structural engineering, engineering technology (electrical), and mechanical engineering.

College	February intake	July intake
North Metropolitan TAFE East Perth campus		
South Metropolitan TAFE Munster campus		

### Course units

To achieve this qualification, you must demonstrate competency in 10 units comprising:

- » three core units; and
- » seven electives.

There are common electives available at all campuses while other electives are campus-specific.

### Core units

- » MEM16006 Organise and communicate information
- » MEM16008 Interact with computing technology
- » MEM30012 Apply mathematical techniques in a manufacturing engineering or related environment

### Electives offered at all campuses

- » MEM09229 Read and interpret technical engineering drawings
- » MEM13015 Work safely and effectively in manufacturing and engineering
- » MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$7900 | **Resource fee** \$300 | **Materials fee** \$0

**Duration** one semester (six months)

### Electives (campus-specific)

- » MEM11011 Undertake manual handling
- » MEM12023 Perform engineering measurements
- » MEM18001 Use hand tools
- » MEM30033 Use computer-aided design (CAD) to create and display 3D models

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, handouts, library catalogue and opportunities to engage with industry professionals.

Facilities and equipment may include access to relevant software including computer-aided design (CAD), Microsoft Office suite, computers, workplace manuals and procedures, workshops and internet access.

## South Metropolitan TAFE Munster campus

**Tuition fee** \$7,900 | **Resource fee** \$310 | **Materials fee** \$0  
**Duration** one semester (six months)

### Electives (campus-specific)

- » MEM12024 Perform computations
- » MSMENV272 Participate in environmentally sustainable work practices
- » MEM12023 Perform engineering measurements
- » MEM30025 Analyse a simple electrical system circuit

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, handouts, library catalogue and opportunities to engage with industry professionals.

Facilities and equipment may include access to relevant software including computer-aided design (CAD), Microsoft Office suite, computers, workplace manuals and procedures, workshops and internet access.



### Work placement information

There is no work placement requirement for this course.



### Career opportunities

- » Mechanical engineering draftpersons/Technicians
- » Civil engineering draftpersons/Technicians



### UniPathway

Options available at  
[tafeinternational.wa.edu.au/unipathwayfinder](https://tafeinternational.wa.edu.au/unipathwayfinder)

## 52889WA Diploma of Civil and Structural Engineering

TAFE ID: BGR66 | CRICOS code: 108218G

### Why choose this course?

Shape the future of the civil engineering industry with this qualification. This course will provide you with the knowledge and leadership skills required for the principal areas of civil construction so that you can establish yourself in this expanding industry.

You will be taught engineering drafting to Australian Standards (AS 1100) and gain exposure to computer-aided design (CAD) packages selected from AutoCAD, Microstation, Revit and 12D. In addition, you will learn sustainability principles and produce civil construction drawings as part of your assessment, gain skills to work with steel and concrete structures, design principles of bulk earth works and plan civil works.

This course will be delivered at East Perth and Perth campus. Specialised classrooms are available across both campus locations and classes will be scheduled to provide you access to these facilities. Your class locations will be provided at the commencement of each semester and detailed on your timetable. Transport between each location incurs no charge on public transport by either bus or train.

College	February intake	July intake
North Metropolitan TAFE East Perth campus	■	■

### Course units

To achieve this qualification, you must demonstrate competency in 18 core units.

### Core units

- » DCSBCD617 Produce basic concrete drawings
- » DCSBCE602 Use basic CAD in engineering
- » DCSBFE613 Use basic fluids in engineering
- » DCSBME604 Use basic mathematics in engineering
- » DCBSBD611 Produce basic steel drawings
- » DCSBSE612 Use basic soils in engineering
- » DCSCAD616 Use CAD in engineering
- » DCSCON605 Use basic construction in engineering
- » DCSENV618 Use basic environmental concepts in engineering
- » DCSGRE603 Use graphics in engineering
- » DCSMAT608 Use materials in engineering
- » DCSMTH610 Use mathematics in engineering
- » DCSoEE609 Operate in an engineering environment
- » DCSPHY606 Use physics in engineering
- » DCSSOM615 Use strength of materials in engineering
- » DCSSTA607 Use statics in engineering
- » DCSSUR614 Use surveying in engineering
- » VU22678 Use building information modelling (BIM) technologies for a project

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$15,800 | **Resource fee** \$850 | **Materials fee** \$160  
**Duration** two semesters (12 months)

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, handouts, campus library and opportunities to engage with industry professionals.

Facilities and equipment may include access to relevant software (CAD, MS Office Suite), computers, printers, workplace manuals, workshops, and a simulated work environment and facilities including surveying equipment, soil testing and fluid laboratories, drafting office simulations, and a workshop with hand tools, power tools and access to technicians.

### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Civil engineering design draftsman
- » Structural engineering drafting officer

### UniPathway

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)





# 52873WA Advanced Diploma of Civil and Structural Engineering

TAFE ID: BGQ97 | CRICOS code: 108219F



## Why choose this course?

Join the next generation of civil and structural engineering experts. This comprehensive qualification in civil and structural engineering will provide you with the skills and knowledge to work on projects ranging from skyscrapers to intricate road designs and expands your study of the design and construction of civil works such as dams, structures and pipe networks.

This course covers a range of engineering specialities including road, rail, and drainage systems, dams, harbours, bridges and buildings in order to extend your knowledge so that you can plan, design, develop and manage construction and repair projects relating to these disciplines.

You will learn a range of engineering drafting standards and receive exposure to computer-aided design (CAD) programs selected from AutoCAD, Microstation, Revit and 12D.

Gain skills in applying construction principles to civil engineering works, produce advanced engineering designs and drawings, 3-D CAD in engineering, and learn structural analysis in engineering.

This course will be delivered at East Perth and Perth campus. Specialised classrooms are available across both campus locations and classes will be scheduled to provide you access to these facilities. Your class locations will be provided at the commencement of each semester and detailed on your timetable. Transport between each location incurs no charge on public transport by either bus or train.

After completing this course you can continue your education at university.

College	February intake	July intake
North Metropolitan TAFE East Perth campus	■	■



## Course units

To achieve this qualification, you must demonstrate competency in 35 core units.



## Core units

- » DCSBCD617 Produce basic concrete drawings
- » DCSBCE602 Use basic CAD in engineering
- » DCSBFE613 Use basic fluids in engineering
- » DCSBME604 Use basic mathematics in engineering
- » DCSBSA619 Use basic structural analysis in engineering
- » DCSBSD611 Produce basic steel drawings
- » DCSBSE612 Use basic soils in engineering
- » DCSCAD616 Use CAD in engineering
- » DCSCAE627 Use 3D CAD in engineering
- » DCSCON605 Use basic construction in engineering
- » DCSENV618 Use basic environmental concepts in engineering
- » DCSFLE624 Use fluids in engineering
- » DCSGRE603 Use graphics in engineering
- » DCSMAT608 Use materials in engineering
- » DCSMTH610 Use mathematics in engineering
- » DCSEEE609 Operate in an engineering environment
- » DCSPHY606 Use physics in engineering
- » DCSSAE626 Use structural analysis in engineering
- » DCSSOL623 Use soils in engineering
- » DCSSOM615 Use strength of materials in engineering
- » DCSSTA607 Use statics in engineering

- » DCSSUR614 Use surveying in engineering
- » DPEFPE619 Apply the fundamentals of professional engineering practice
- » VU22492 Produce engineering drawings for a rural road
- » VU22493 Produce drawings to enable urban road construction
- » VU22494 Produce engineering drawings for a stormwater reticulation scheme
- » VU22543 Produce an advanced engineering design for a reinforced concrete structure
- » VU22544 Produce an advanced engineering design for a steel structure
- » VU22547 Produce an engineering drainage design for pipes and culverts
- » VU22549 Produce an engineering design for a sewerage reticulation scheme
- » VU22550 Produce an engineering design for a reinforced concrete structure
- » VU22551 Produce an engineering design for a steel structure
- » VU22552 Produce advanced engineering drawings for a reinforced concrete structure
- » VU22553 Produce advanced engineering drawings for a steel structure
- » VU22678 Use building information modelling (BIM) technologies for a project

## North Metropolitan TAFE East Perth campus

**Tuition fee** \$15,800 | **Resource fee** \$1,100 | **Materials fee** \$160  
**Duration** two semesters (12 months)

## Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, handouts, campus library and opportunities to engage with industry professionals.

Facilities and equipment may include access to relevant software (CAD, MS Office Suite), computers, printers, workplace manuals, workshops, and a simulated work environment and facilities including surveying equipment, soil testing and fluid laboratories, drafting office simulations, and a workshop with hand tools, power tools and access to technicians.



## Work placement information

There is no work placement requirement for this course.



## Career opportunities

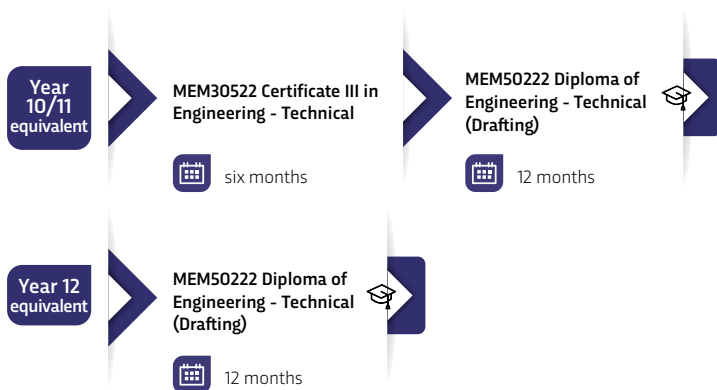
- » Civil engineering assistant
- » Engineering associate - Civil engineer



## UniPathway

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)

# TECHNICAL DRAFTING



All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated. Equivalent to Australian Year 11 with a pass in mathematics is required for entry into the certificate III level at North Metropolitan TAFE. Equivalent to Australian Year 12 with a pass in mathematics is required for entry into this course at diploma level.

UniPathways – Start your studies at TAFE then continue to university with a UniPathway.

## MEM50222 Diploma of Engineering - Technical (Drafting)

TAFE ID: AE07 | CRICOS code: 112005H

### Why choose this course?

Pursue your career in a wide range of engineering fields by completing this qualification. This course will provide you with the practical skills and knowledge in electrical machinery, mechanical principles and mechanical equipment to produce drawings for design specifications.

Learn how to use and operate computer-aided design (CAD) to produce drawings and create 3-D models, set up basic hydraulic circuits, apply technical mathematics and produce basic engineering design drawings. In addition you will coordinate engineering projects and learn environmentally sustainable work practices.

On completion of this course, you will be able to work in a number of different engineering related careers including mining and mineral processing, manufacturing, the oil and gas industry and the automotive industry.

\*\*Please note that this course has a strong drafting focus and it will be delivered in specialised classrooms across both East Perth and Perth campus. Your class locations will be provided at the commencement of each semester and detailed in your timetable.

Colleges	February intake	July intake
North Metropolitan TAFE East Perth campus	■	■

### Course units

To achieve this qualification, you must demonstrate competency in 20 units comprising:

- » five core units; and
- » 15 electives.

### Core units

- » MEM16006 Organise and communicate information
- » MEM16008 Interact with computing technology
- » MEM22002 Manage self in the engineering environment
- » MEM30012 Apply mathematical techniques in a manufacturing engineering or related environment
- » MSMENV272 Participate in environmentally sustainable work practices

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$15800 | **Resource fee** \$500 | **Materials fee** \$0  
**Duration** two semesters (12 months)

### Electives (campus-specific)

- » VU22678 Use building information modelling (BIM) technology for a project
- » MEM09157 Perform mechanical engineering design drafting
- » MEM09229 Read and interpret technical engineering drawings
- » MEM11011 Undertake manual handling
- » MEM12023 Perform engineering measurements
- » MEM13015 Work safely and effectively in manufacturing and engineering
- » MEM18001 Use hand tools
- » MEM22013 Coordinate engineering projects
- » MEM30007 Select common engineering materials

- » MEM30009 Contribute to the design of basic mechanical systems
- » MEM30029 Use workshop equipment and processes to complete an engineering project
- » MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements
- » MEM30032 Produce basic engineering drawings
- » MEM30033 Use computer-aided design (CAD) to create and display 3D models
- » MEM09227 Establish structural steel detailing project arrangements

#### **Learning resources, facilities and equipment**

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, class handouts and specialised software including CAD and Microsoft Office Suite.

Facilities and equipment may include access to the library catalogue, computers, workplace manuals and procedures, workshops, electronics laboratory and opportunities to engage with industry professionals via industry site visits and guest lecturers.



#### **Work placement information**

There is no work placement requirement for this course.



#### **Career opportunities**

- » Engineering technician
- » Engineering draftsman



#### **UniPathway**

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](https://tafeinternational.wa.edu.au/unipathwayfinder)

# ENGINEERING - MECHANICAL

## South Metropolitan TAFE Munster campus



All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated. Equivalent to Australian Year 12 with a pass in mathematics is required for entry into this course at diploma level.

UniPathways — Start your studies at TAFE then continue to university with a UniPathway.

## MEM50222 Diploma of Engineering - Technical

TAFE ID: BIW7 | CRICOS code: 112005H

### Why choose this course?

Pursue your career in a wide range of engineering fields by completing this qualification. This course will provide you with the practical skills and knowledge in electrical machinery, mechanical principles and mechanical equipment to produce drawings for design specifications.

Learn how to use and operate computer-aided design (CAD) to produce drawings and create 3-D models, set up basic hydraulic circuits, apply technical mathematics and produce basic engineering design drawings. In addition, you will coordinate engineering projects and learn environmentally sustainable work practices. On completion of this course you will be able to work in a number of different engineering related careers including mining and mineral processing, manufacturing, the oil and gas industry and the automotive industry.

If you're considering advancing your engineering studies to an advanced diploma level in either mechanical or electrical streams, choosing Munster campus is highly recommended for this diploma course. It's important to note that the Munster campus is the sole campus location accredited by Engineers Australia (EA).

Colleges	February intake	July intake
South Metropolitan TAFE Munster campus	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Course units

To achieve this qualification, you must demonstrate competency in 20 units comprising:

- » five core units; and
- » 15 electives.

### Core units

- » MEM16006 Organise and communicate information
- » MEM16008 Interact with computing technology
- » MEM22002 Manage self in the engineering environment
- » MEM30012 Apply mathematical techniques in a manufacturing engineering or related environment
- » MSMENV272 Participate in environmentally sustainable work practices

### South Metropolitan TAFE Munster campus

**Tuition fee** \$15800 | **Resource fee** \$1,480 | **Materials fee** \$260  
**Duration** two semesters (12 months)

### Electives (campus-specific)

- » MEM13015 Work safely and effectively in manufacturing and engineering
- » MEM14089 Integrate mechanical fundamentals into an engineering task
- » MEM22013 Coordinate engineering projects
- » MEM23004 Apply technical mathematics
- » MEM23006 Apply fluid and thermodynamics principles in engineering
- » MEM23063 Select and organise mechanical engineering material tests
- » MEM23109 Apply engineering mechanics principles
- » MEM23111 Select electrical equipment and components for engineering applications
- » MEM30005 Calculate force systems within simple beam structures
- » MEM30006 Calculate stresses in simple structures
- » MEM30007 Select common engineering materials
- » MEM30009 Contribute to the design of basic mechanical systems
- » MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements
- » MEM30032 Produce basic engineering drawings
- » MEM30033 Use computer-aided design (CAD) to create and display 3D models

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), workbooks, learning guides, PowerPoint presentations and class handouts.

Facilities and equipment may include access to specialist training rooms and laboratories, specialised software, materials testing equipment, fluid mechanics equipment, thermodynamic equipment, dynamics equipment, 3D printers and laser cutting machines.



### Work placement information

There is no work placement requirement for this course.



### Career opportunities

- » Engineering technician
- » Engineering draftsman

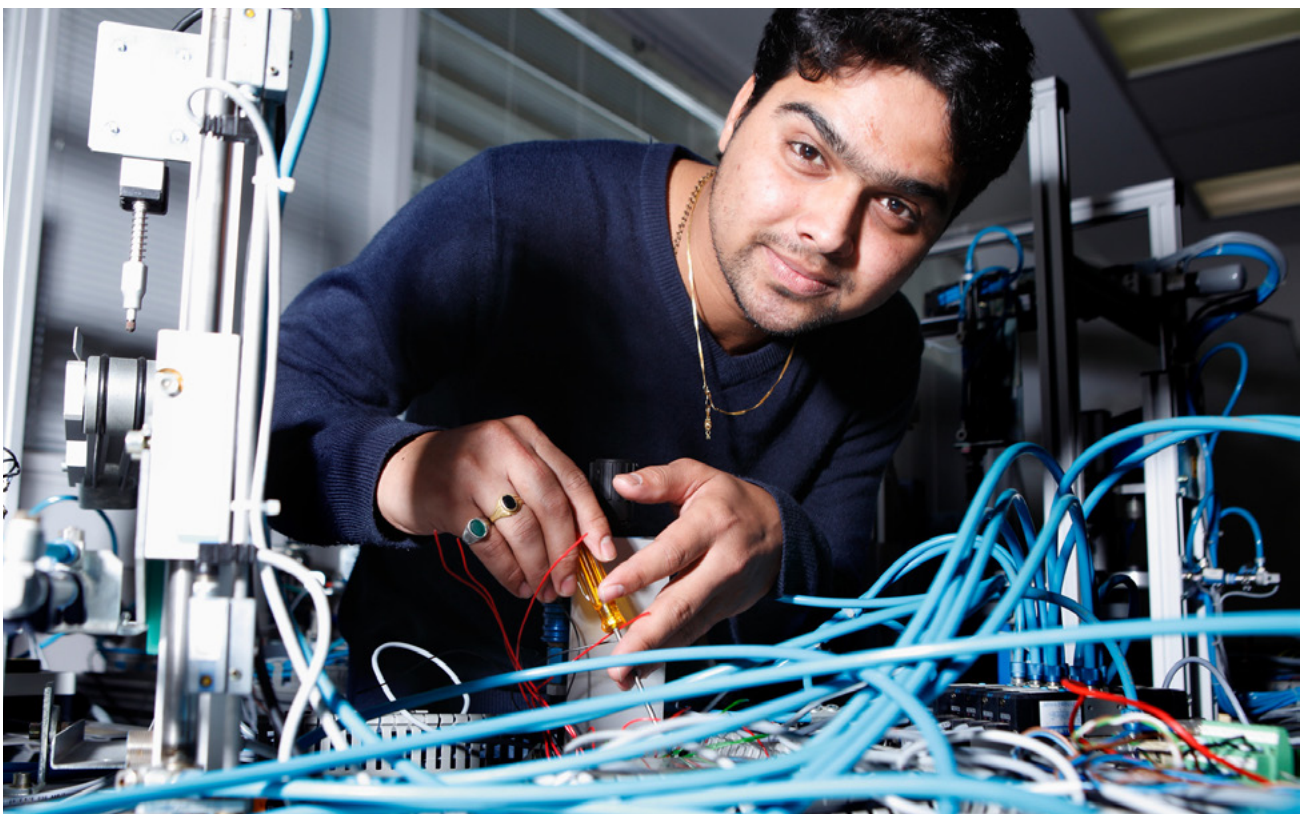


### UniPathway

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)



Students that do not have the equivalent of Australian year 12 can commence at the **MEM30522 Certificate III in Engineering - Technical** (see pages 6-7)



## MEM60122 Advanced Diploma of Engineering (Mechanical)

TAFE ID: AE00 | CRICOS code: 112016E

### Why choose this course?

Gain a competitive edge and develop technical skills for your future in engineering with this qualification.

During your studies you will learn how to apply engineering principles, systems and processes. You will also develop skills in drafting and design, gain analytical knowledge involving manufacturing and fabrication techniques, and learn to draw and design mechanical equipment.

On completion of this course, you may find employment in a range of industries in roles involving: computer aided design and drafting, process plant drafting and design, machine drafting and design, air conditioning drafting and design, shipbuilding drafting and design, plant maintenance supervision (building on a trade background), and general engineering and technical functions.

College	February intake	July intake
South Metropolitan TAFE Munster campus	■	■

### Course units

To achieve this qualification, you must demonstrate competency in 30 units comprising:

- » seven core units; and
- » 23 electives.

### Core units

- » MEM16006 Organise and communicate information
- » MEM16008 Interact with computing technology
- » MEM22001 Perform engineering activities
- » MEM22002 Manage self in the engineering environment
- » MEM30007 Select common engineering materials
- » MEM30012 Apply mathematical techniques in a manufacturing, engineering or related environment
- » MSMENV272 Participate in environmentally sustainable work practices

### South Metropolitan TAFE Munster campus

**Tuition fee** \$15,800 | **Resource fee** \$1,480 | **Materials fee** \$0

**Duration** two semesters (12 months)

#### Electives

- » MEM09157 Perform mechanical engineering design drafting
- » MEM13015 Work safely and effectively in manufacturing and engineering
- » MEM14085 Apply mechanical engineering analysis techniques
- » MEM14089 Integrate mechanical fundamentals into an engineering task
- » MEM22013 Coordinate engineering projects
- » MEM23003 Operate and program computers and/or controllers in engineering situations
- » MEM23004 Apply technical mathematics
- » MEM23006 Apply fluid and thermodynamics principles in engineering
- » MEM23007 Apply calculus to engineering tasks

- » MEM23008 Apply advanced algebra and numerical methods to engineering tasks
- » MEM23063 Select and organise mechanical engineering material tests
- » MEM23109 Apply engineering mechanics principles
- » MEM23111 Select electrical equipment and components for engineering applications
- » MEM23113 Evaluate hydrodynamic systems and system components
- » MEM23114 Evaluate thermodynamic systems and components
- » MEM23115 Evaluate fluid power systems
- » MEM23120 Select mechanical machine and equipment components
- » MEM30005 Calculate force systems within simple beam structures
- » MEM30006 Calculate stresses in simple structures
- » MEM30007 Select common engineering materials
- » MEM30009 Contribute to the design of basic mechanical systems
- » MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements
- » MEM30032 Produce basic engineering drawings
- » MEM30033 Use computer-aided design (CAD) to create and display 3D models

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), workbooks, learning guides, PowerPoint presentations and class handouts.

Facilities and equipment may include access to specialist training rooms and laboratories, specialised software, fluid mechanics equipment, thermodynamic equipment, dynamics equipment, 3D printers, laser cutting machines, computer numerical control (CNC) machine and hydraulic equipment.

### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Associate engineer
- » Detailed drafter
- » Maintenance technician

### UniPathway

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)

# ENGINEERING

## South Metropolitan TAFE Carlisle campus



All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated. Equivalent to Australian Year 12 with a pass in Year 11 mathematics is required for entry into this course at diploma level at South Metropolitan TAFE.

**UniPathways** – Start your studies at TAFE then continue to university with a UniPathway.

## MEM50222 Diploma of Engineering – Technical

TAFE ID: BIW7 | CRICOS code: 112005H

### Why choose this course?

Pursue your career in a wide range of engineering fields by completing this qualification. This course will provide you with the practical skills and knowledge in electrical machinery, mechanical principles and mechanical equipment to produce drawings for design specifications.

Learn how to use and operate computer-aided design (CAD) to produce drawings and create 3-D models, set up basic hydraulic circuits, apply technical mathematics and produce basic engineering design drawings. In addition, you will coordinate engineering projects and learn environmentally sustainable work practices.

On completion of this course you will be able to work in a number of different engineering related careers including mining and mineral processing, manufacturing, the oil and gas industry and the automotive industry.

If you are interested in a heating, ventilation and air conditioning (HVAC) specialisation at the advanced diploma level it is recommended that you choose Carlisle campus. This program offers tailored elective units designed to equip you with the precise knowledge and practical skills required for this field. The facility at Carlisle campus is Western Australia's premier centre for HVAC and associated studies and the purpose-built facility is amongst the best in the southern hemisphere.

College	February intake	July intake
South Metropolitan TAFE Carlisle campus	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Course units

To achieve this qualification, you must demonstrate competency in 20 units comprising:

- » five core units; and
- » 15 electives.

### Core units

- » MEM16006 Organise and communicate information
- » MEM16008 Interact with computing technology
- » MEM22002 Manage self in the engineering environment
- » MEM30012 Apply mathematical techniques in a manufacturing, engineering or related environment
- » MSMENV272 Participate in environmentally sustainable work practices

### South Metropolitan TAFE Carlisle campus

**Tuition fee** \$15800 | **Resource fee** \$612 | **Materials fee** \$0  
**Duration** two semesters (12 months)

### Electives

- » CPPBDN6106 Produce building information modelling for building design projects
- » MEM12024 Perform computations
- » MEM12025 Use graphical techniques and perform simple statistical computations
- » MEM13015 Work safely and effectively in manufacturing and engineering
- » MEM23003 Operate and program computers and/or controllers in engineering situations
- » MEM23004 Apply technical mathematics
- » MEM23006 Apply fluid and thermodynamics principles in engineering
- » MEM23007 Apply calculus to engineering tasks
- » MEM23109 Apply engineering mechanics principles
- » MEM23140 Determine operational parameters for building HVAC hydronic systems
- » MEM23142 Determine psychrometric processes and system performance
- » MEM30007 Select common engineering materials
- » MEM30025 Analyse a simple electrical system circuit
- » MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements
- » MEM30032 Produce basic engineering drawings

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, class handouts, manuals, Australian Standards regulations, drawings, and specialised software such as Microsoft Office, computer aided design (CAD) and building information modeling (BIM).

Facilities and equipment may include access to classrooms with desktops, materials testing laboratories and equipment, refrigeration and air conditioning trainers and a library. You will also have use of the purpose-built training facility at Carlisle campus.

#### **Work placement information**

There is no work placement requirement for this course.

#### **Career opportunities**

- » Engineering draftsperson
- » Engineering technician

#### **UniPathway**

Options available at  
[tafeinternational.wa.edu.au/unipathwayfinder](https://tafeinternational.wa.edu.au/unipathwayfinder) 





## MEM60122 Advanced Diploma of Engineering

TAFE ID: BIW5 | CRICOS code: 112016E

### Why choose this course?

Enhance your specialist skills in heating, ventilation and air conditioning (HVAC) systems with this qualification. Our focus is to design HVAC systems to ensure optimal human comfort and health in the places we live, work, and play, all while maintaining a sustainable impact on the environment.

The advanced diploma has selected elective units that will assist in a HVAC specialisation. During your studies you will learn about the principles of fluid dynamics, thermodynamics, central plant operations, applied psychrometrics, electronics, programming, workplace communications, sustainability, and energy management. Furthermore immerse yourself in cutting-edge areas such as building information modelling and computer-aided drafting and design.

You will be guided by our skilled team of lecturers who are experienced industry professionals as you are trained in designing and implementing today's computer-controlled HVAC systems for residential and commercial settings.

Empower your career by acquiring the credentials to become a proficient problem-solver in HVAC systems, ensuring utmost human comfort and health. Elevate your engineering prowess to a supervisory level, driving innovation and fostering optimal environments for all.

Please note: The MEM60122 Advanced Diploma of Engineering (BIW5) will replace the MEM60112 Advanced Diploma of Engineering in Heating, Ventilation, and Air Conditioning. Additionally, it's important to note that the Carlisle campus does not presently possess accreditation from Engineers Australia (EA).

College	February intake	July intake
South Metropolitan TAFE Carlisle campus		

### Course units

To achieve this qualification, you must demonstrate competency in 30 units comprising:

- » seven core units; and
- » 23 electives.

### Core units

- » MEM16006 Organise and communicate information
- » MEM16008 Interact with computing technology
- » MEM22001 Perform engineering activities
- » MEM22002 Manage self in the engineering environment
- » MEM30007 Select common engineering materials
- » MEM30012 Apply mathematical techniques in a manufacturing, engineering or related environment
- » MSMENV272 Participate in environmentally sustainable work practices

### South Metropolitan TAFE Carlisle campus

**Tuition fee** \$15,800 | **Resource fee** \$740 | **Materials fee** \$0  
**Duration** two semesters (12 months)

### Electives

- » CPPBDN6106 Produce building information modelling for building design projects
- » MEM09155 Prepare mechanical models for computer-aided engineering (CAE)
- » MEM09157 Perform mechanical engineering design drafting
- » MEM12024 Perform computations
- » MEM12025 Use graphical techniques and perform simple statistical computations
- » MEM13015 Work safely and effectively in manufacturing and engineering
- » MEM23003 Operate and program computers and/or controllers in engineering situations
- » MEM23004 Apply technical mathematics
- » MEM23006 Apply fluid and thermodynamics principles in engineering
- » MEM23007 Apply calculus to engineering tasks
- » MEM23008 Apply advanced algebra and numerical methods to engineering tasks
- » MEM23109 Apply engineering mechanics principles
- » MEM23124 Measure and analyse noise and vibration
- » MEM23129 Evaluate thermal loads for heating, ventilation, air conditioning and refrigeration
- » MEM23140 Determine operational parameters for building HVAC hydronic systems
- » MEM23141 Complete a building thermal performance survey
- » MEM23142 Determine psychrometric processes and system performance
- » MEM23147 Contribute to the design of hydronic systems
- » MEM23153 Contribute to the design of heat exchanger systems
- » MEM30025 Analyse a simple electrical system circuit
- » MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements
- » MEM30032 Produce basic engineering drawings
- » MEM30033 Use computer-aided design (CAD) to create and display 3D models

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), PowerPoint presentations, workbooks, learning guides, PowerPoint presentations and class handouts.

Facilities may include access to specialist training rooms and laboratories, specialised software and other equipment.

### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Associate engineer
- » Detailed drafter
- » Maintenance technician


### UniPathway

Options available at  
[tafeinternational.wa.edu.au/unipathwayfinder](https://tafeinternational.wa.edu.au/unipathwayfinder)

# ELECTRICAL

Year 10/11 equivalent

**MEM30522 Certificate III in Engineering - Technical**

 six months

**UEE62122 Advanced Diploma of Engineering Technology - Electrical**

 24 months

Year 12 equivalent

**UEE62122 Advanced Diploma of Engineering Technology - Electrical**

 24 months

All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated.

Equivalent to Australian Year 10 is required for entry into the Certificate III course at South Metropolitan TAFE and Australian Year 11 with passes in mathematics is required at North Metropolitan TAFE.

Equivalent to Australian Year 12 with a pass in Year 11 mathematics is required for entry into the advanced diploma level at South Metropolitan TAFE.

 **UniPathways** — Start your studies at TAFE then continue to university with a UniPathway.

## UEE62122 Advanced Diploma of Engineering Technology - Electrical

TAFE ID: BHZ3 | CRICOS code: 114752A

### Why choose this course?

Take your electrical engineering career to the next level with this qualification. Turn your interest in electrical systems and infrastructure into the skills you need to enter this exciting industry, with this two year qualification.

During this course you will gain the skills to provide electrical support, diagnose faults in electrical systems, facilitate repairs and solve a range of electrotechnology engineering problems. In addition, you will also learn how to program logic controllers using Supervisory Control and Data acquisition (SCADA). This course also covers electrical design, motor control, computer programming, and writing project specifications to prepare for facilitating real world electrical projects.

On completion of this course you will have a solid foundation to advance your career or continue your studies at university level.

College	February intake	July intake
South Metropolitan TAFE Munster campus		

### Course units

To achieve this qualification, you must demonstrate competency in 43 units comprising:

- » 24 core units; and
- » 19 electives.

### Core units

- » UEECD0003 Apply industry and community standards to engineering activities

- » UEECD0004 Apply material science to solving electrotechnology engineering problems
- » UEECD0005 Apply physics to solving electrotechnology engineering problems
- » UEECD0007 Apply work health and safety regulations, codes and practices in the workplace
- » UEECD0010 Compile and produce an energy sector detailed report
- » UEECD0014 Develop design briefs for electrotechnology projects
- » UEECD0026 Manage risk in electrotechnology activities
- » UEECD0036 Provide engineering solutions for problems in complex multiple path circuits
- » UEECD0039 Provide solutions to basic engineering computational problems
- » UEECD0044 Solve problems in multiple path circuits
- » UEECD0046 Solve problems in single path circuits
- » UEECD0056 Apply methods to maintain currency of industry developments
- » UEECD0059 Write specifications for electrical engineering projects
- » UEECD0064 Interpret, produce and modify electrotechnology drawings
- » UEEEL0015 Manage large electrical projects
- » UEEEL0019 Solve problems in direct current (d.c.) machines
- » UEEEL0020 Solve problems in low voltage a.c. circuits
- » UEEEL0021 Solve problems in magnetic and electromagnetic devices
- » UEEEL0058 Plan large electrical projects
- » UEEEL0062 Provide engineering solutions to problems in complex polyphase power circuits
- » UEEEL0077 Evaluate and report on the performance of LV machines
- » UEEEL0079 Plan and analyse LV electrical apparatus
- » UEEEL0080 Plan and analyse wiring systems, circuits, control and protection for electrical installations
- » UEERE0013 Develop strategies to address environmental and sustainability issues in the energy sector

## South Metropolitan TAFE Munster campus

**Tuition fee** \$31,600 | **Resource fee** \$1,640 | **Materials fee** \$2,040  
**Duration** four semesters (24 months)

### Electives

- » UEECD0019 Fabricate, assemble and dismantle utilities industry components
- » UEECD0024 Implement and monitor energy sector WHS policies and procedures
- » UEECD0040 Solve basic problems electronic and digital equipment and circuits
- » UEECD0041 Solve electrotechnical engineering problems
- » UEECD0049 Use advanced computational processes to provide solutions to energy sector engineering problems
- » UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications
- » UEEC00001 Estimate electrotechnology projects
- » UEEC00002 Maintain documentation
- » UEES0033 Use engineering applications software on personal computers
- » UEEEL0041 Develop engineering solution for synchronous machine and control problems
- » UEEEL0042 Develop engineering solutions for d.c. machine and control problems
- » UEEEL0043 Develop engineering solutions for induction machine and control problems
- » UEEIC0002 Assemble, enter and verify operating instructions in microprocessor equipped devices
- » UEEIC0006 Design and configure Human-Machine Interface (HMI) networks
- » UEEIC0010 Develop and test code for microcontroller devices
- » UEEIC0012 Develop structured programs to control external devices
- » UEEIC0013 Develop, enter and verify discrete control programs for programmable controllers
- » UEEIC0014 Develop, enter and verify programs in supervisory control and data acquisition systems
- » UEEIC0015 Develop, enter and verify word and analogue control programs for programmable logic controllers

### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard Learning Management System (LMS), workbooks, learning guides and handouts.

Facilities and equipment may include access to general learning areas, specialist training rooms and laboratories, specialised software in Microsoft Office and Multisim, LabVolt electrical machines, laboratory equipment including DC power supply, oscilloscopes, function generators and multimeters, hand soldering equipment, hand and power tools, LabVolt AC & DC machines, amplifiers, power supplies and three phase power systems.



### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Engineering technician
- » Electrical technology advisor
- » Senior technical officer


### UniPathway

Options available at  
[tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)


# SURVEYING

Year 11 equivalent


**CPP30221 Certificate III in Surveying and Spatial Information Services**

 six months

**CPP41721 Certificate IV in Surveying and Spatial Information Services (Surveying)**

 six months

**CPP50121 Diploma of Surveying**

 12 months

**CPP60121 Advanced Diploma of Surveying**

 12 months

All courses listed require an IELTS score (Academic) 6.0 with no band less than 5.0 or equivalent, unless otherwise stated. Students are required to have a pass result in mathematics at the Year 11 level or higher.

 **UniPathways** — Start your studies at TAFE then continue to university with a UniPathway.

## CPP30221 Certificate III in Surveying and Spatial Information Services


TAFE ID: BG18 | CRICOS code: 104883F

### Why choose this course?

Enter the surveying industry with this qualification and become work-ready for roles such as surveying assistant and spatial information services assistant.

This course will provide you with the skills to produce, read and interpret basic maps, collect surveying data, produce basic plans of surveys and perform basic surveying computations.

You will also learn about workplace safety and the requirements necessary to be successful in the field. Overall you will work with spatial data and operate basic survey equipment. Surveying and spatial information skills are required in a range of industry contexts, including town planning, civil construction, mining, engineering, health, agriculture and defence.

College	February intake	July intake
North Metropolitan TAFE East Perth campus		

### Course units

To achieve this qualification, you must demonstrate competency in 11 units comprising:

- » six core units; and
- » five electives.

### Core units

- » CPCCWHS1001 Prepare to work safely in the construction industry
- » CPPSSI3011 Produce basic maps
- » CPPSSI3015 Collect basic surveying data
- » CPPSSI3019 Produce basic plans of surveys
- » CPPSSI3020 Perform simple surveying and spatial computations
- » ICTICT214 Operate application software packages

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$7900 | **Resource fee** \$500 | **Materials fee** \$450  
**Duration** one semester (six months)

#### Electives

- » AHCECR307 Read and interpret maps
- » CPPSSI3016 Provide field support services for surveying and spatial projects
- » CPPSSI3021 Visually interpret image data
- » HLTAID011 Provide First Aid
- » MEM30012A Apply mathematical techniques in a manufacturing engineering or related environment

#### Learning resources, facilities and equipment

Learning resources may include access to specialised equipment and computer software (Magnet and CorelDraw), the Blackboard Learning Management System (LMS), PowerPoint presentations, learning guides, workbooks and handouts.

Facilities and equipment may include access to surveying equipment such as Trimble M3, Automatic Optical Level, GNSS Hemisphere S321, Garmin 72H Handheld GPS, Excel, Microsoft Word and Office 365, ArcMap, Coreldraw and Magnet Calculator.

### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Surveying assistant
- » Mine engineering surveyor

### UniPathway

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)

## CPP41721 Certificate IV in Surveying and Spatial Information Services (Surveying)

TAFE ID: AE32 | CRICOS code: 104884E

### Why choose this course?

Further your studies to progress into a surveying technician career with this qualification. Survey technicians perform a range of duties using surveying tools and equipment, including total stations and global navigation satellite systems (GNSS), supported by data management skills. Spatial information services technicians perform a range of duties using geospatial technologies and specialised software, supported by data management skills.

During your studies you will learn how to use surveying technologies and software to capture, process and present electronic data. You will also have access to surveying equipment in order to produce computer-aided drawings (CAD) and survey plans so that you can prepare and present geographic information system (GIS) data.

Practical skills are combined with important analytical skills that include maintaining workplace safety and developing environmentally sustainable methods. Learn from expert lecturers with close ties to industry to ensure your training reflects the latest industry practices.

College	February intake	July intake
North Metropolitan TAFE East Perth campus	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Course units

To achieve this qualification, you must demonstrate competency in 15 units comprising:

- » three core units; and
- » 12 electives.

### Core units

- » CPPSI3020 Perform simple surveying and spatial computations
- » CPPSI4025 Collect spatial data using GNSS
- » CPPSI4036 Operate spatial software applications

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$7,900 | **Resource fee** \$450 | **Materials fee** \$450  
**Duration** one semester (six months)

### Electives

- » AHCECR307 Read and interpret maps
- » CPPSI3011 Produce basic maps
- » CPPSI3019 Produce basic plans of surveys
- » CPPSI4022 Store and retrieve spatial data
- » CPPSI4030 Operate surveying equipment
- » CPPSI4031 Perform surveying computations
- » CPPSI4037 Produce computer-aided drawings
- » CPPSI4038 Prepare and present GIS data
- » CPPSI4039 Design and produce maps
- » CPPSI4040 Collect spatial data using a total station
- » CPPSI4041 Set out site and building works
- » CPPSI5060 Develop spreadsheets for spatial data

### Learning resources, facilities and equipment

Learning resources may include access to specialised equipment and computer software (Magnet and CorelDraw), the Blackboard Learning Management System (LMS), PowerPoint presentations, learning guides, workbooks and handouts.

Facilities and equipment may include access to surveying equipment such as Trimble M3, Automatic Optical Level, GNSS Hemisphere S321, Garmin 72H Handheld GPS, Excel, Microsoft Word/Office 365, ArcMap, CorelDraw and Magnet Calculator.

### Work placement information

There is no work placement requirement for this course.

### Career opportunities

- » Surveying assistant
- » Mineral processing technician

### UniPathway

Options available at [tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder) 



## CPP50121 Diploma of Surveying

TAFE ID: BGI9 | CRICOS code: 104885D



### Why choose this course?

Expand your knowledge and experience of surveying with this qualification. This course will further your skills by teaching you how to conduct advanced Global Navigation Satellite Systems (GNSS) data collection and set out surveys, create engineering drawings and perform advanced surveying computations. You will be trained in the operation of sophisticated surveying equipment and software for conducting more complex engineering surveys, such as road designs.

This diploma has a focus on geodetic surveying including how to conduct geodetic surveys and perform computations. You will also develop industry specific skills including how to design basic engineering structures and plan spatial data collection. A large selection of electives is available to choose from, such as producing maps for land management purposes, producing mine drawings and how to set out stormwater systems.

On completion of this course you will be eligible for an associate membership of the Surveying and Spatial Sciences Institute.

College	February intake	July intake
North Metropolitan TAFE East Perth campus	■	■



### Course units

To achieve this qualification, you must demonstrate competency in 16 units comprising:

- » eight core units; and
- » eight electives.



### Core units

- » CPPSSI5047 Conduct GNSS surveys
- » CPPSSI5048 Conduct engineering surveys
- » CPPSSI5053 Perform complex surveying computations
- » CPPSSI5054 Perform geodetic surveying computations
- » CPPSSI5057 Conduct precision surveys
- » CPPSSI5058 Conduct geodetic surveys
- » CPPSSI5061 Survey subsurface utility information
- » CPPSSI5065 Design basic engineering structures

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$15800 | **Resource fee** \$750 | **Materials fee** \$450

**Duration** two semesters (12 months)

### Electives

- » AHCLPW410 Produce maps for land management purposes
- » CPPSSI5031 Develop a spatial data collection plan
- » CPPSSI5032 Capture new spatial data
- » CPPSSI5046 Set out roads and stormwater systems
- » CPPSSI5060 Develop spreadsheets for spatial data
- » CPPSSI5062 Conduct photogrammetric mapping
- » CPPSSI6021 Conduct open pit mine surveys
- » CPPSSI6022 Produce mine drawings

### Learning resources, facilities and equipment

Learning resources may include access to specialised equipment and computer software (Magnet and CorelDraw), the Blackboard, Learning Management System (LMS), PowerPoint presentations, learning guides, workbooks and handouts.

Facilities and equipment may include access to surveying equipment such as Leica TS15 TS16, DNA10, LS10, Hemisphere GNSS, Leica ts15, simulator software, industry specific calculator, HP Prime, surveying software (Surpac, Magnet, CorelDraw, ARCGIS), site with varying topography and vegetation density, printer and hardware.



### Work placement information

There is no work placement requirement for this course.



### Career opportunities

- » Surveying assistant
- » Mineral processing technician



### UniPathway

Options available at

[tafeinternational.wa.edu.au/unipathwayfinder](http://tafeinternational.wa.edu.au/unipathwayfinder)



## CPP60121 Advanced Diploma of Surveying

TAFE ID: BGJO | CRICOS code: 104886C



### Why choose this course?

Equip yourself with skills to carry out highly specialised surveying functions in areas such as mining and engineering construction, with this qualification.

Learn how to collect and analyse spatial data for complex engineering structures, roads, railways and surface and underground mining operations. This course will train you in the operation of sophisticated surveying equipment and software including Global Positioning System (GPS) and the processing of survey data to produce computer-aided engineering designs and mine plans.

Other skills you will also cover include processes to follow in order to conduct advanced Global Navigation Satellite System (GNSS) control surveys and complex engineering set-out surveys, how to manage risk and monitor engineering structures.

### Additional requirements

This course may contribute towards the eligibility requirements to become a WA Certified Engineering Surveyor, under the Engineering Surveying Professional (Australasia Pacific) Certification, or a WA Authorised Mine Surveyor. You are encouraged to check full eligibility requirements.

College	February intake	July intake
North Metropolitan TAFE East Perth campus	■	■



### Course units

To achieve this qualification, you must demonstrate competency in nine units comprising:

- » two core units; and
- » seven electives.



### Core units

- » BSBPMG536 Manage project risk
- » CPPSSI6032 Conduct advanced GNSS control surveys

### North Metropolitan TAFE East Perth campus

**Tuition fee** \$15800 | **Resource fee** \$500 | **Materials fee** \$450

**Duration** two semesters (12 months)

### Electives

- » CPPSSI6021 Conduct open pit mine surveys
- » CPPSSI6022 Produce mine drawings
- » CPPSSI6033 Conduct underground mine surveys
- » CPPSSI6034 Conduct mining geology project research
- » CPPSSI6035 Conduct complex engineering set-out surveys
- » CPPSSI6036 Monitor engineering structures
- » CPPSSI6041 Compile mine survey plans



### Learning resources, facilities and equipment

Learning resources may include access to the Blackboard, Learning Management System (LMS), survey equipment details and specifications, research articles, booking sheets, workbooks and handouts.

Facilities and equipment may include access to surveying equipment, computers, printers, associated surveying software (Surpac, Magnet, Trimble Business Centre, Starnet, and Baseline), mineral and rock samples, hand lenses and streak plates.



### Work placement information

There is no work placement requirement for this course.



### Career opportunities

- » Surveying assistant
- » Mineral processing technician



### UniPathway

Options available at

[tafeinternational.wa.edu.au/unipathwayfinder](https://tafeinternational.wa.edu.au/unipathwayfinder)

### Fee information

There are three types of fees required.

- » **Tuition** – International student tuition fees are set on a commercial basis and are paid as a whole of course fee.
- » **Resource** – These are mandatory fees paid to your TAFE college each semester. These fees are a fixed payment determined by each unit of enrolment. Resources fees are charged for items you will use during your course, for example if you are studying a hospitality course it will be the food you use; or an art and design course may include paint.
- » **Materials** – These fees are for materials you will keep for use during and after your studies, for example personal protective equipment, text books, uniforms etc.

Tuition fees are current at the time of printing and reviewed annually. Resource and materials fees may apply and these vary between campus locations. For more information about fees please visit [tafeinternational.wa.edu.au/fees](https://tafeinternational.wa.edu.au/fees).

### Work placement hours

Work placement hours are subject to change and may vary between campus locations.



TAFE International Western Australia (TIWA) is the registered training organisation (RTO) and Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS) provider for the delivery of training to international students enrolled in TAFE courses in Western Australia. These nationally recognised courses are delivered by Western Australian TAFE colleges on TIWA's behalf. TIWA retains responsibility for the quality of the training and assessment delivered by the TAFE colleges and for the issue of certification documentation to students.

TAFE International Western Australia, East Perth TAFE campus, Building B, Level 2, 140 Royal Street, East Perth WA 6004

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