



# New Zealand Certificate in Automotive Engineering (Level 3)



**Domestic Fees**

\$8,299.00



**Duration**

1 year full-time



[witt.ac.nz](http://witt.ac.nz)

**WITT**  
WESTERN INSTITUTE OF  
TECHNOLOGY AT TARANAKI  
TE KURA MATATINI O TARANAKI

Turn your passion for vehicles into a career by gaining the knowledge and skills to enter employment in the automotive industry. You'll develop a full range of skills to be able to service and repair engines, transmission, driveline, brakes, steering and suspension systems, how to check and perform minor repairs on electrical systems, electronic control systems, and learn about high voltage safety and climate control systems. You will also learn how to weld and carry out valuable engineering tasks.

## You will learn how to

- follow workplace policies, procedures and relevant regulations to work safely and effectively in an automotive workshop.
- use tools and equipment to complete basic workshop engineering tasks.
- apply fundamental automotive engineering knowledge to service engine, and driveline systems.
- check operation of, and perform minor repairs on, electrical and electronic systems.
- apply fundamental automotive engineering knowledge to service steering, suspension and brake systems.

## Courses

### CAE3.101 - Automotive Workshop Safety

Students will identify and consistently apply policies, procedures and regulations that ensure safe and effective working practices when undertaking work in an automotive workshop.

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### CAE3.102 - Basic Workshop Engineering Tasks, Tools and Equipment

Students will use hand and power tools and workshop

engineering equipment to complete basic automotive engineering workshop tasks.

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### CAE3.103 - Engines

Students will identify the components of an engine; strip, measure and reassemble and start an engine as well as carry out tuning, including ignition systems for four stroke petrol and diesel engines.

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### CAE3.104 - Engine Systems

Students will describe the function, purpose and location of engine systems and undertake basic servicing of engine systems.

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### CAE3.105 - Driveline Systems

Students will describe the function, purpose and location of driveline systems and undertake basic servicing of driveline systems.

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### CAE3.106 - Electrical and Electronics

Students will understand and identify automotive electrical and electronic principles as well as carry out basic checks and repairs on wiring and lighting systems.

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### CAE3.107 - Starting and Charging Systems

Students will identify the function and purpose of starting and charging systems as well as use appropriate tools and processes to check the operation of starting and charging systems.

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### CAE3.108 - Electronic Controls, High Voltage Systems and HVAC

Students will understand the function and purpose of control systems, use appropriate tools and processes to check the operation of electronic control systems as well as understand the operation and safety processes of high voltage systems.

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## CAE3.109 - Brake Systems

Students will identify the function, purpose and location of brake systems and use appropriate tools and processes to service brake systems.

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## CAE3.110 - Steering and Suspension Systems

Students will identify the function, purpose and location of steering and suspension systems and use appropriate tools and processes to service steering and suspension systems.

## Programme Specific Information

Students are required to undertake 162 hours of work experience within the automotive engineering industry to enhance their formal learning. Doing so will consolidate course content, establish relationships with industry and open up employment/apprenticeship opportunities.

## Entry Requirements

Candidates must have:

- 10 credits in each of literacy (reading and writing) and numeracy at NCEA Level 1, OR
- be able to demonstrate suitable knowledge and skill

Applicants are recommended to hold a Class 1 Drivers Licence, with a minimum requirement of a Learners licence, working towards a restricted.

## Career Options

Automotive Engineer, Motorcycle Engineer, Automotive Electrical Engineer, Automotive Machinist, accessories and parts sales, Automotive Dismantler, small engine repair, power boat servicing.

## Additional Course Related Costs

- Pens, Pencils, clip board and highlighters
- Note pad
- Steel Cap work boots
- Overalls (Cotton overalls preferred)
- Safety Glasses
- Torch
- Bag for all your equipment
- Computer/tablet (WITT has a limited supply for students to use and to avoid disappointment students need to apply early).

### Please note

- Personal protection equipment (PPE) is mandatory for certain tasks.
- You may be able to get a Student Loan for these course-related costs. This list of tools can be discussed with your tutor.
- Security provisions and insurance cover are the responsibility of the students. WITT accepts no responsibility for the loss or damage of personal tools and equipment.