

**Qualification Title:** New Zealand Certificate in Light Automotive Engineering (Level 4)

**Qualification number:** 3450

**Date of review:** 5 November 2021

This report refers to graduates awarded this qualification prior to: **31 December 2020**

**Final decision on consistency of the qualification: National consistency is confirmed**

#### **Threshold:**

The threshold to determine sufficiency with the graduate profile was determined as evidence of graduates being able to:

- Monitor the workplace and respond to issues as required to maintain a safe and effective workplace;
- Apply the appropriate precautionary measures when servicing and repairing high risk light automotive systems; and
- Diagnose and repair common faults in light vehicle engines and driveline systems, electrical and electronic systems and steering, and suspension and braking systems.

#### **Education Organisations with sufficient evidence**

The following education organisations have been found to have sufficient evidence.

MOE Number	Education Organisation	Final rating
6025	Toi Ohomai Institute of Technology Limited	Sufficient
6011	Nelson Marlborough Institute of Technology Limited	Sufficient
6008	Wellington Institute of Technology Limited	Sufficient
6006	Ara Institute of Canterbury Limited	Sufficient
9013	MITO New Zealand Inc	Sufficient
6007	Eastern Institute of Technology Limited	Sufficient

#### **Introduction**

This level 4, 200 credit New Zealand certificate has been designed for individuals who are interested in a career as a light automotive engineer.

The qualification is intended to provide the automotive engineering industry with individuals who have attained the knowledge and skills required to safely and effectively diagnose and repair faults that are commonly encountered on light vehicles, including cars, light commercial vehicles, and light trailers. Graduates will be able to work in a range of workplaces in positions that involve service and repair of light vehicles, for example as a light

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automotive engineer. They will be able to work independently and may have some responsibility for monitoring the workplace.

This qualification builds on the New Zealand Certificate in Automotive Engineering (Level 3) [Ref: 3097] and may lead on to further study in New Zealand Certificate in Light Automotive Engineering (Level 5) [Ref: 3451].

The qualification (version 1) was developed in 2016 by MITO New Zealand Inc, in collaboration with the industry and education organisations. Since then, the standard setting body responsibilities, including ownership of the qualification, were transitioned to Hanga-Ara-Rau the Workforce Development Council (WDC) for the manufacturing, engineering and logistics sectors. A review is planned for 2022, in conjunction with the suite of automotive qualifications.

There were six education organisations with a total of 189 graduates from their programmes of study and industry training over the reporting period.

The consistency review was held virtually (via zoom) and was attended by five of the education organisations, the qualification developer from Hanga-Aro-Aru, and several observers. One education organisation's submission was evaluated via a desktop review, as they had fewer than 5 graduates.

### Evidence

The education organisations provided a range of evidence to demonstrate that their graduates met the graduate profile outcomes.

The criteria used to judge the evaluation question were:

- The nature, quality and integrity of the evidence presented by the education organisation;
- How well the organisation has analysed, interpreted and validated the evidence, and used the understanding gained to achieve actual or improved consistency; and
- The extent to which the education organisation can reasonably justify and validate claims and statements relating to the consistency of graduate outcomes, including in relation to other providers of programmes leading to the qualification.

The evidence included:

- Confirmation that each education organisation had a coherent programme of study or programme of industry training, which ensured that programme components (courses/unit standards and assessment activities) are aligned to the graduate profile;
- Evidence that graduates had been in full-time work as apprentices or had spent some time in light automotive engineering workshops that supported the learning and application of practical skills;
- Internal and external moderation evidence that assured the programme was assessed at an appropriate level, and assessment was valid;
- Feedback from graduates and employers, confirming that the programme had provided graduates with a range of skills aligned to the graduate profile and prepared them for working independently as light automotive engineers; and
- Destination data – including continuing in employment, moving to workplaces offering new opportunities and/or progressing to further learning in the field.

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### **How well does the self-assessment and supporting evidence provided by the education organisation demonstrate that its graduates match the graduate outcomes at the appropriate threshold?**

Education organisations submitted a range of evidence that could be triangulated to demonstrate that their graduates match the graduate outcomes at the appropriate threshold.

The education organisations provided good evidence related to their approved programmes of study or industry training and how the module and/or unit standard learning outcomes, and the assessment activities were mapped against the qualification graduate profile outcomes. The institutes of technology developed their programme of study collaboratively, and since having this approved, have continued to share assessments and resources, as well as participate in moderation with the consortium partners.

Learners were either undertaking industry training or participating in managed apprenticeship programmes with Institutes of Technology, providing opportunities to practice and demonstrate their competency in a workplace environment under supervision. On this basis, all of the programmes met the qualification's general conditions that requires it to be delivered in the context of a workshop operating at a commercially acceptable industry standard. Learners were also supported with teacher-directed learning at scheduled night classes or block courses, on-line resources, and with regular workplace visits from programme co-originators or training advisors.

Moderation evidence was sound. Some education organisations provided evidence and descriptions of their moderation plans and processes, whilst others included clear summaries of moderation results, and the actions taken to improve assessments and assessor practices. Moderation evidence demonstrated the validity of assessment outcomes, and supported claims that graduates had met graduate outcomes consistently.

Graduate and employer survey results and feedback were provided and consistently confirmed that graduates had gained, and were using, the skills and knowledge outlined in the graduate profile. The majority of graduates had continued with the employer they had trained with, while a small number had moved for new opportunities. Some graduates were continuing to study at higher levels in the automotive field.

The submissions generally, analysed, interpreted and triangulated their evidence and made clear and convincing arguments for how well each evidence source and the evidence, taken as a whole had shown the graduates were demonstrating the graduate profile outcomes.

Overall, the self-assessment and supporting evidence supplied, by those organisations found sufficient, demonstrates that their graduates meet the graduate outcomes at the determined threshold.

**Special Focus** (includes special focus on a strand or outcome)

None

### **Examples of good practice**

The institutes of technology's consortium approach to the programme design, sharing of resources and moderation partnering demonstrates the value that can be achieved from collaboration and sharing.

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### **Issues and concerns**

There was a theme from the graduate and employer feedback for the institutes of technology programmes, that indicated that their graduates were not as confident in the application of GPOs 4 – diagnose and repair common faults in light vehicles' electrical and electronic systems. Some ITPs had made changes to their delivery on the basis of this feedback.

### **Recommendations to Qualification Developer**

There was robust discussion about the large step (real or perceived) students are expected to make when transitioning from the New Zealand Certificate in Automotive Engineering, Level 3 to the Level 4 qualification which is the subject of this consistency review). Some participants considered this gap relates to the lack of time spent conducting service and repair prior to being expected to operate at technician level (diagnose and repair).

The qualification developer agreed that there is a need to understand the readiness of graduates from the Level 3 qualification progressing to the Level 4 one, and the skill sets that need to be the in the Level 4 graduate profile.

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