

Qualification Title: New Zealand Certificate in Mechanical Engineering Level 3

Qualification number: 2715

Date of review: 21 July 2020

This report refers to graduates awarded this qualification prior to: 31 December 2019

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 working safely under limited supervision to apply basic and operational mechanical and/or fabrication engineering related knowledge, understanding, and applied skills as an operator and/or trade assistant including:

- An understanding of relevant health and safety requirements and safety culture, when carrying out engineering tasks
- Numeracy, literacy, and visualisation skills to perform engineering tasks
- Perform a defined range of engineering tasks according to instructions using relevant materials, tools, and equipment
- Set up and carry out a single process engineering job according to instructions.
- An understanding of effective and efficient processes and principles to the engineering jobs being undertaken
- Take responsibility for the appropriate quality of own engineering work and make corrections as required
- Participate and communicate effectively within an engineering team.

Education Organisations with sufficient evidence

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

MOE Number	Education Organisation	Final rating
6004	Unitec Institute of Technology Ltd	Sufficient
6006	Ara Institute of Canterbury Ltd	Sufficient
6007	Eastern Institute of Technology Ltd	Sufficient
6008	Wellington Institute of Technology Ltd	Sufficient
6009	Universal College of Learning Ltd	Sufficient
6010	Manukau Institute of Technology Ltd	Sufficient
6011	Nelson Marlborough Institute of Technology Ltd	Sufficient
6012	Northland Polytechnic Ltd	Sufficient
6013	Otago Polytechnic Ltd	Sufficient
6015	Southern Institute of Technology Ltd	Sufficient

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MOE Number	Education Organisation	Final rating
6017	Western Institute of Technology Ltd	Sufficient
6019	Waikato Institute of Technology Ltd	Sufficient
6024	Tai Poutini Polytechnic Ltd	Sufficient
6025	Toi Ohomai Institute of Technology Ltd	Sufficient

Introduction

This Level 3 qualification of 120 credits is designed for people already working in the industry or people intending to complete a pre-trade qualification before entering the industry. Graduates will gain practical skills and knowledge to work under limited supervision in the mechanical engineering, construction, manufacturing, and fabrication industries.

Graduates of this qualification may decide to undertake further study at Level 4 - New Zealand Certificate in Mechanical Engineering, Engineering Fabrication, or Mechanical Building Services.

The qualification was approved in 2015 and is due for review in 2020. Competenz is the qualification developer and a representative attended the consistency review meeting.

Fifteen providers presented their evidence over two days. There was a total of 628 graduates across all providers and all years.

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
- 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.

Evidence provided for this review included:

- Confirmation that the education organisations had a coherent programme of study or programme of industry training which ensured that programme components led to the graduate profile.
- Evidence of quality assessment affirmed through comprehensive moderation.
- Graduate data that confirmed graduates met the skills and knowledge outlined in the graduate profile.
- Destination data which confirmed graduates' skills and knowledge were relevant to their context, prepared them for working in the industry or for study at level four. How well graduates met the GPO's was affirmed by employers, and other next users including tutors, lecturers or apprentice managers.

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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?

The education organisations who were sufficient provided good programme, destination and graduate evidence to demonstrate that the graduates met the graduate profile outcomes at the appropriate threshold. The evidence covered multiple years, was sufficient in breadth and depth, and included a broad range of stakeholder perspectives (qualitative and quantitative feedback). The evidence was triangulated to understand areas for improvement, and overall the self-assessment of the evidence led to credible conclusions about consistency. Areas of weakness related to insufficient moderation information submitted or no external moderation taking place; and/or insufficient evidence of programme review.

Graduate survey data was gathered from approximately a third of all graduates (29%), some providers had no graduate feedback. In some cases, the analysis of graduate data was robust, insightful, triangulated with employer/next level tutor feedback and areas for improvement were identified as action points to address. Overall however the analysis of graduate data could be strengthened by looking at trends by year, by priority learner and by context (e.g. those in employment and those in further study). All institutions who gathered graduate feedback used quantitative survey methods. Some of the survey tools could be improved to ensure that the survey questions align to the GPOs that graduates are being asked to self-assess themselves against. Some providers are asking graduates to self-assess their confidence or competence or satisfaction to meet the GPO's. While the variability is not an issue, providers should consider what they can reasonably deduce about a graduate's ability to apply or demonstrate their practical skills and knowledge from a satisfaction or confidence survey.

Destination data was generally strong however the analysis could be strengthened by providers aligning the destination of graduates to the pathways in the qualification and where possible identifying the relevance of the graduate's role in their place of work to the qualification. For those graduates who continue further study in their organisation it would be useful to report on whether they succeeded at a high level of study in addition to the relevance of their further study to the qualification.

Currently providers are just listing the destination of graduates with limited analysis; some providers submitted no destination data. There are approximately 320 graduates (48%) where their destination (outcome) is unknown.

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.

Issues and concerns

None

Recommendations to Qualification Developer

None