Field Engineering and Technology

Review of *Mechanical Engineering* unit standards

Subfield	Domain	ID
Mechanical Engineering	Engineering Core Skills	21905, 21908
	Engineering - Fabrication	16955, 16956

Competenz has completed the review of the unit standards listed above.

Date new versions published **February 2016**

Planned review date **December 2020**

Summary

As a result of the Targeted Review of Qualifications process (TRoQ), Competenz has reviewed these unit standards to better reflect the requirements of industry and the outcomes listed in newly developed New Zealand qualifications.

Meetings with industry experts were conducted, identifying the required content to meet industry need and compared this content against existing unit standards. It was identified that four existing unit standards should be replaced with three new unit standards to provide assessment for structured learning throughout apprenticeships in mechanical engineering.

Three new unit standards were developed to provide a structured pathway for assessing maths throughout a mechanical engineering apprenticeship or for other learners within the field of mechanical engineering.

Drafts of each unit standard were circulated and industry and providers were invited to submit feedback. After consultation and feedback, industry and providers endorsed these changes.

Main changes

- Three new unit standards were developed to reflect industry need for the assessment of competency of maths for mechanical engineering trades.
- Four existing unit standards were not required in the new qualifications and were designated expiring along.

Category D unit standards will expire at the end of December 2020

Impact on registered qualifications

Key to type of impact	
Affected	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
Not materially affected	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following table identifies qualifications developed by other SSBs that are impacted by the outcome of this review. The SSBs have been advised that the qualifications require revision. The classifications and/or standards that generated the status *Affected* are listed in below.

Ref	Qualification Title	Classification or ID	SSB Name
1414	National Certificate in Motor Industry (Automotive Body) (Level 4) with strands in Coachbuilding, Collision Repair, and Refinishing	16955	New Zealand Motor Industry Training Organisation
1416	National Certificate in Motor Industry (Automotive Specialist Engineering) (Level 4) with strands in Automotive Heating, Ventilation, and Air Conditioning; Automotive Machining; Diesel Fuel Injection; and Motorsport	16956	

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
B	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new ID
D	Standard will expire and not be replaced

Engineering and Technology > Mechanical Engineering > Engineering Core Skills

ID	Title	Level	Credit	Review Category
21905	Demonstrate knowledge of trade calculations and units for mechanical engineering trades	2	6	**D**
21908	Demonstrate knowledge of basic mechanics for mechanical engineering trades	2	3	**D**
29397	**Demonstrate knowledge of basic trade calculations and units of measure for mechanical engineering trades**	**2**	**4**	**New**
29398	**Apply knowledge of basic trade calculations for mechanical engineering trades**	**2**	**4**	**New**
29399	**Demonstrate and apply knowledge of trade calculations to solve problems for mechanical engineering trades**	**3**	**4**	**New**

Engineering and Technology > Mechanical Engineering > Engineering - Fabrication

ID	Title	Level	Credit	Review Category
16955	Calculate sizes, mass, volumes, and quantities for fabrication	3	4	**D**
16956	Demonstrate knowledge of force and stress in fabrication	4	4	**D**