Demonstrate knowledge of new technology developments relevant to the mechanical engineering industry

Level **5**

Credits **5**

Purpose This unit standard is intended for advanced mechanical engineering tradespeople and covers knowledge of mechanical engineering technology developments relevant to their industry.

People credited with this unit standard are able to demonstrate knowledge of new technology developments and their impact on a particular workplace within the mechanical engineering industries; and prepare a business case for improvements to a mechanical engineering enterprise through the use of a new technology.

Subfield Mechanical Engineering

Domain Engineering Core Skills

Status Registered

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Entry information Open.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Competenz

Accreditation and Moderation Action Plan (AMAP) reference 0013

This AMAP can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Special notes

Definitions
New technology – technology that has been developed or become commercially available in the past five years, or existing technology that is being used for a new application.
Workplace style guide refers to any set of standards for the writing and design of documents that is acceptable and appropriate to the workplace for which the development is intended.

Elements and performance criteria

Element 1

Demonstrate knowledge of new technology developments and their impact on a particular workplace within the mechanical engineering industries.

Range mechanical engineering industries could be one of the following – engineering fabrication, fire protection, general and maintenance engineering, mechanical services, or precision engineering.
Evidence of two new technology developments is required.

Performance criteria

1.1 The features of the new development are explained in terms of its application in a particular workplace.

1.2 The implications of introducing the new development in a particular workplace are analysed.

Range cost, manpower, quality, productivity.

1.3 Sources of information are documented in accordance with the workplace style guide.

Element 2

Prepare a business case for improvements to a mechanical engineering enterprise through the use of a new technology.

Performance criteria

2.1 Business case clearly documents shortcomings of present technology and how this may be improved through the use of a new technology.

2.2 Business case compares at least two options and identifies the most suitable with costs and benefits expressed in measurable terms.

2.3 The standard and format of the business case meet company practice.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact Competenz info@competenz.org.nz if you wish to suggest changes to the content of this unit standard.