

<b>Title</b>	<b>Demonstrate and apply knowledge of planning and scheduling mechanical engineering maintenance work in the context of BCM</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This unit standard is for use in the training of mechanical engineering maintenance personnel in manufacturing and processing plants. It covers the elements of maintenance work management and work order planning and scheduling in a Business Centred Maintenance (BCM) programme.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of maintenance work management processes and their contribution to BCM; plan and document maintenance activities in BCM programme; and schedule and document maintenance activities in a maintenance best practice programme.</p>
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<b>Classification</b>	Mechanical Engineering > Maintenance and Diagnostics in Mechanical Engineering
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<b>Available grade</b>	Achieved
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**Explanatory notes**

- 1 Reference  
Richard (Doc) Palmer. *Maintenance Planning and Scheduling Handbook*. New York: McGraw-Hill, 1999.
- 2 Definitions  
*BCM* – Business Centred Maintenance.  
*CPA* – Critical Path Analysis.  
*CPM* – Critical Path Method.  
*PERT* – Programme Evaluation and Review Technique.  
*Recognised methodology* refers to a methodology for maintenance work management processes in accordance with the reference text listed in explanatory note 1, or similar published methodologies, or similar in-house enterprise methodologies for which guidelines or precedents exist.

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## Outcomes and evidence requirements

### Outcome 1

Demonstrate knowledge of maintenance work management processes and their contribution to BCM.

#### Evidence requirements

1.1 The key processes involved in managing maintenance work in a maintenance excellence programme are explained in terms of purpose and contribution to BCM.

Range processes include – work identification and work order approval, maintenance planning, work scheduling, work execution, review and close-out.

### Outcome 2

Plan and document maintenance activities in a BCM programme.

Range evidence of planning of at least five work orders is required.

#### Evidence requirements

2.1 Maintenance activities are planned and documented in a BCM programme in accordance with a recognised methodology.

Range planning includes but is not limited to – work order status, scope of work, coordination with other departments, warranty claims, requirements for further investigation, funding requirements; scope of work includes but is not limited to – planning for personnel, materials, outsourcing, estimating practices, permits; planning must employ PERT, CPA, or CPM charts and clearly identify critical path, using software.

### Outcome 3

Schedule and document maintenance activities in a maintenance best practice programme.

Range schedule and documentation of the plan in Outcome 2 is required.

#### Evidence requirements

3.1 Maintenance activities are scheduled and documented in a maintenance best practice programme in accordance with a recognised methodology.

Range scheduling includes but is not limited to – operational availability of equipment, costs, availability of personnel; scheduling must employ Gantt chart, using software. Software may also highlight activities on critical path.

<b>Planned review date</b>	31 December 2015
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 November 2010	N/A

<b>Accreditation and Moderation Action Plan (AMAP) reference</b>	0013
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This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

#### Please note

Providers must be granted consent to assess against standards (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 granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Consent 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](mailto:info@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.