



- Amendments to levels and/or credits to reflect the level of skill required by the candidate, the extent of supervision, and the overall learning demand.
- New unit standards written to replace existing unit standards to reflect the level of skill required by the candidate, the extent of supervision, and the overall learning demand.

**Unit standards categorised as category C or D expire at the end of December 2008.**

### Impact on existing provider accreditations

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification or Id	Level	Nature of accreditation	Classification or Id	Level
Subfield	Mechanical Engineering	4	Standards	21783 21784	5 6
Subfield	Mechanical Engineering	5	Standards	11385 21784	6
Domain	Applied Principles of Mechanical Engineering	4	Standards	21783 21784	5 6

### Impact on Accreditation and Moderation Action Plan (AMAP)

None.

### Impact on existing qualifications

Qualifications that contain the reviewed standards or classifications are tabled below.

<b>Affected</b>	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
<b>Not materially affected</b>	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following Competenz qualifications are affected by the outcome of this review and will be reviewed in 2006.

Qualification title	Classification or standard in the qualification
National Diploma in Engineering (Mechanical Engineering) (Level 6) [Ref: 0534]	11385, 11387-11391, 11394-11397, 11399, 14141, 14866
National Certificate in Maintenance and Diagnostics in Mechanical Engineering (Level 5) [Ref: 0718]	11395-11397, 11399
National Certificate in Engineering – Fabrication (Level 5) with strands in Heavy Fabrication, Light Fabrication and Welding [Ref: 0681]	11388-11391
National Certificate in Engineering Machining and Toolmaking (Level 5) [Ref: 0719]	11394, 11397

The following qualification is also affected by the outcome of this review. The standard setting body (PaMPITO) has been advised that it requires revision.

Qualification title	Classification or standard in the qualification	SSB Name
National Diploma in Plastics Processing Technology (Level 5) [Ref: 1004]	11388, 11389, 11395, 11396, 14141, 14866	PaMPITO

### Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

#### Key to review category

- A** Dates changed, but no other changes are made - the replacement standard carries the same Id and a new version number
- B** Changes made, but the overall outcome remains the same - the replacement 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

Field            Engineering and Technology  
Subfield        Mechanical Engineering

Id	Domain	Title	Level	Credit	Review Category
11385	Applied Principles of Mechanical Engineering	Apply principles of fluid mechanics to mechanical engineering systems <b>Demonstrate and apply knowledge of fluid mechanics in mechanical engineering</b>	5 <b>6</b>	15	B
11386	Applied Principles of Mechanical Engineering	Apply principles of lubrication to rotating and sliding machine elements	6	10	B
11387	Applied Principles of Mechanical Engineering	Apply principles of thermodynamics to mechanical engineering systems	6	25	C
<b>21781</b>		<b>Explain and apply laws of thermodynamics in mechanical engineering</b>	<b>5</b>	<b>15</b>	
<b>21782</b>		<b>Demonstrate and apply advanced knowledge of principles of thermodynamics in mechanical engineering</b>	<b>6</b>	<b>15</b>	

Id	Domain	Title	Level	Credit	Review Category
11388	Applied Principles of Mechanical Engineering	Select homogeneous components involving statically determinate force systems	4	10	C
11389		Produce an analysis of static and dynamic force systems	4	10	
21773		<b>Demonstrate and apply knowledge of mechanical statics for mechanical engineering</b>	4	15	
21774		<b>Demonstrate and apply knowledge of mechanical dynamics for mechanical engineering</b>	4	15	
11390	Applied Principles of Mechanical Engineering	Apply principles of strengths of materials to mechanical engineering systems	6	25	C
21783		<b>Demonstrate and apply knowledge of strength of materials in mechanical engineering</b>	5	15	
21784		<b>Demonstrate and apply advanced knowledge of strength of materials in mechanical engineering</b>	6	15	
11391	Applied Principles of Mechanical Engineering	Apply theory of machines to mechanical components and mechanisms	6	15	C
21277		<b>Demonstrate and apply knowledge of the mechanics of machines in mechanical engineering</b>	6	15	
11392	Applied Principles of Mechanical Engineering	Apply mechanical engineering principles to mechanical power transmission	5	10	B
11393	Applied Principles of Mechanical Engineering	Apply principles of vibration and acoustics to mechanical engineering systems	6	10	B
11394	Applied Principles of Mechanical Engineering	Select and specify materials for mechanical engineering applications	6	15	C
21785		<b>Demonstrate knowledge of and test materials for mechanical engineering applications</b>	5	15	

Id	Domain	Title	Level	Credit	Review Category
11395  11396  <b>21787</b>	Applied Principles of Mechanical Engineering	Apply principles of electronics relevant to mechanical engineering systems Apply electrical principles in mechanical engineering systems <b>Demonstrate and apply electrical and electronic knowledge to mechanical engineering</b>	5  5  <b>5</b>	10  10  <b>15</b>	C
11397  <b>21788</b>	Applied Principles of Mechanical Engineering	Select mechanical engineering manufacturing processes and equipment <b>Demonstrate and apply knowledge of manufacturing processes and equipment for mechanical engineering</b>	5  <b>5</b>	20  <b>15</b>	C
11398	Applied Principles of Mechanical Engineering	Select and specify materials handling systems for mechanical engineering	6	20	B
11399	Maintenance and Diagnostics in Mechanical Engineering	Develop and manage maintenance systems for mechanical engineering processes <b>Develop, implement, and review maintenance plans for mechanical engineering systems</b>	6	15  <b>20</b>	B
14141	Applied Principles of Mechanical Engineering	Describe and apply mechanical technology	4	12	D
14866	Applied Principles of Mechanical Engineering	Gain experience with mechanical engineering materials processing equipment <b>Demonstrate workshop skills for mechanical engineering</b>	2	15  <b>12</b>	B
<b>21771</b>	<b>Engineering Core Skills</b>	<b>Manage a mechanical engineering project</b>	<b>6</b>	<b>20</b>	<b>New</b>
<b>21772</b>	<b>Applied Principles of Mechanical Engineering</b>	<b>Apply sketching techniques and produce drawings for mechanical engineering</b>	<b>4</b>	<b>11</b>	<b>New</b>
<b>21775</b>	<b>Applied Principles of Mechanical Engineering</b>	<b>Demonstrate knowledge of mathematical principles for mechanical engineering</b>	<b>3</b>	<b>15</b>	<b>New</b>

<b>Id</b>	<b>Domain</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
21776	Applied Principles of Mechanical Engineering	Apply knowledge of calculus and data analysis for mechanical engineering	4	15	New
21777	Applied Principles of Mechanical Engineering	Apply knowledge of quality and reliability for mechanical engineering production	6	15	New
21778	Applied Principles of Mechanical Engineering	Demonstrate and apply knowledge of mechanical engineering operations management	6	15	New
21779	Applied Principles of Mechanical Engineering	Demonstrate and apply knowledge of mechanical engineering planning	5	15	New
21780	Maintenance and Diagnostics in Mechanical Engineering	Develop and implement design in a mechanical engineering workplace	6	20	New
21786	Maintenance and Diagnostics in Mechanical Engineering	Select and specify materials for mechanical engineering applications	6	20	New