

National Certificate in Mechanical Engineering (Level 4) with strands in Electricity Supply, Fitting and Machining, General Engineering, Machining, Maintenance Engineering, and Toolmaking

Level	4
Credits	270–300

Purpose

The National Certificate in Mechanical Engineering (Level 4) with strands in Electricity Supply, Fitting and Machining, General Engineering, Machining, Maintenance Engineering, and Toolmaking is a trade qualification for people in the engineering industry. It combines a broad, common foundation of mechanical engineering with more specialised skills and knowledge in the form of strands to suit the nature of the particular trade or enterprise the individual is engaged in. It is intended to provide training for people in occupations traditionally referred to as Fitters, Fitters and Turners, Fitters and Welders, Maintenance and Diagnostics Engineers, Maintenance Fitters, Power Station Fitters, Toolmakers, Precision Machinists, and Machine Tool Setters.

The training common to all strands includes health and safety, measurement and tolerancing, tools, materials and metals, sketching, drawing interpretation, trade calculations, mechanics, hydraulics, pneumatics, basic machining, welding, fitting, assembly, and job costing. Additional training provides the special skills needed for each strand, and elective unit standards are chosen to match the range of work available in the candidate's enterprise.

The **Electricity Supply** strand is for those employed in enterprises installing, maintaining and servicing electricity generating plant and equipment as well as ancillary plant and equipment. This will include a planned approach to maintenance using computerised maintenance systems and conditioning monitoring.

The **Fitting and Machining** strand is for those employed in machine building and related occupations, where both precision fitting and machining skills are required. Typically this involves machining, assembly, and alignment of components to close tolerances, machine installation, and hydraulic or pneumatic control systems. Computer Numerically Controlled (CNC) machinery and simple toolmaking may be involved in some enterprises.

The **General Engineering** strand is for those employed in a general engineering workshop, where the work may involve fitting, machining, welding, maintenance, repair, hydraulics, pneumatics, marine or rail engineering, fabrication, or gunsmithing. Often the work will be of a one-off or contractual nature.

The **Machining** strand is for those employed in enterprises where the emphasis is on precision machining of components. These enterprises typically employ sophisticated CNC mills and lathes to produce engineering components to high degrees of tolerance and finish.

The **Maintenance Engineering** strand is for those employed on engineering maintenance work in enterprises where the emphasis is on maintaining reliable production, possibly in a

lean (competitive) manufacturing environment. These enterprises typically have a planned approach to maintenance, involving computerised maintenance systems and condition monitoring. The strand is also appropriate for those employed in contract maintenance work for such enterprises.

The **Toolmaking** strand is for those employed in enterprises making tooling, press tooling, moulds, dies, gauges, jigs, and fixtures for industrial processes. Tools are typically used in sheet metal presses, or in injection moulding, blow moulding, extrusion, and pressure diecasting operations. The making of these tools requires knowledge of tool operation and Computer-Aided Design/Computer-Aided Manufacturing (CAD/CAM) techniques, and may involve machining using computer numerically controlled (CNC) machining centres or electro discharge machines (EDM).

There are unit standards in common in the requirements of some strands. This structure has been designed so that the elective choices made by apprentices or trainees will naturally reflect the unique nature of their occupation and strand.

This qualification incorporates the standards of the National Certificate in Mechanical Engineering (Level 2) [Ref: 1220]. People who have achieved that qualification will already have 60 credits towards this qualification.

Having completed this qualification in one strand, candidates need only complete the additional strand requirements to gain this qualification in a second strand.

Those who have achieved this qualification may wish to continue training for the following higher qualifications:

- National Certificate in Maintenance and Diagnostics in Mechanical Engineering (Level 5) [Ref: 0718]; or
- National Certificate in Engineering Machining and Toolmaking (Level 5) [Ref: 0719]; or
- proposed National Certificate in Mechanical Engineering (Level 5) [currently under development]; or
- National Diploma in Engineering (Level 6) with strands in Mechanical Engineering, Production Engineering, and an optional Practical Endorsement strand [Ref: 0534].

Replacement Information

This qualification replaced the National Certificate in Maintenance and Diagnostics in Mechanical Engineering (Level 4) [Ref: 0125] and the National Certificate in Engineering Machining and Toolmaking (Level 4) [Ref: 0123].

Credit Range

	Core Compulsory	Electricity Supply Strand		Fitting and Machining Strand		General Engineering Strand	
		Comp	Elect	Comp	Elect	Comp	Elect
Level 1 credits	6	-	0-95	-	0-55	-	0-81
Level 2 credits	70	9	0-95	-	0-55	-	0-81
Level 3 credits	36	29	0-95	68	0-55	22	0-81
Level 4 or above credits	6	44	5-100	6	43-98	6	43-124
Minimum totals	118	82	100	74	98	28	124
Qualification total with strand		300		290		270	

	Machining Strand		Maintenance Engineering Strand		Toolmaking Strand	
	Comp	Elect	Comp	Elect	Comp	Elect
Level 1 credits	-	0-79	-	0-56	-	0-57
Level 2 credits	6	0-79	4	0-56	6	0-57
Level 3 credits	38	0-79	43	0-56	70	0-57
Level 4 or above credits	5	44-123	34	15-71	20	29-86
Minimum totals	49	123	81	71	96	86
Qualification total with strand	290		270		300	

Key**Comp** = Compulsory**Elect** = Elective**Requirements for Award of Qualification**

This qualification will be awarded to people who have met the requirements of the Core Compulsory section, and the compulsory and elective sections of one of the strands. The requirements for each strand are summarised below:

Electricity Supply

- Core Compulsory standards: 118 credits;
- strand compulsory standards: 82 credits; and
- strand elective standards: 100 credits with a minimum of 5 credits at Level 4.

Fitting and Machining

- Core Compulsory standards: 118 credits;
- strand compulsory standards: 74 credits; and
- strand elective standards: 98 credits with a minimum of 43 credits at Level 4.

General Engineering

- Core Compulsory standards: 118 credits;
- strand compulsory standards: 28 credits; and
- strand elective standards: 124 credits with a minimum of 43 credits at Level 4.

Machining

- Core Compulsory standards: 118 credits;
- strand compulsory standards: 49 credits; and
- strand elective standards: 123 credits with a minimum of 44 credits at Level 4.

Maintenance Engineering

- Core Compulsory standards: 118 credits;
- strand compulsory standards: 81 credits; and
- strand elective standards: 71 credits with a minimum of 15 credits at Level 4.

Toolmaking

- Core Compulsory standards: 118 credits;
- strand compulsory standards: 96 credits; and
- strand elective standards: 86 credits with a minimum of 29 credits at Level 4.

Award of NQF Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided in the Qualifications Authority *Rules and Procedures* publications available at www.nzqa.govt.nz/ncea/.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (Id). Any version of a standard with the same Id may be used to meet qualification requirements that list the Id and/or that specify the past or current classification of the standard.

Detailed Qualification Requirements**Core Compulsory**

All the standards listed below are required.

Field Engineering and Technology
Subfield Mechanical Engineering
Domain Engineering – Materials

Id	Title	Level	Credit
4797	Demonstrate knowledge of the composition of engineering metals	3	5
20799	Demonstrate basic knowledge of engineering metals	2	4
20917	Demonstrate basic knowledge of engineering materials	2	2

Domain Engineering – Measurement

Id	Title	Level	Credit
4433	Select, use, and care for simple measuring devices used in engineering	1	2
4435	Select, use, and care for, engineering dimensional measuring equipment	2	3
4436	Select, use and care for engineering marking-out equipment	2	4
4438	Demonstrate knowledge of fits, limits, and tolerances in engineering	2	2

Id	Title	Level	Credit
4440	Demonstrate and apply knowledge of international tolerancing in engineering	4	4

Domain Engineering Core Skills

Id	Title	Level	Credit
2395	Select, use and care for, engineering hand tools	2	4
2396	Select, use and maintain portable hand held engineering power tools	2	4
21905	Demonstrate knowledge of trade calculations and units for mechanical engineering trades	2	4
21906	Perform basic mechanical engineering machining operations under supervision	2	12
21908	Demonstrate knowledge of basic mechanics for mechanical engineering trades	2	2
21909	Demonstrate knowledge of fasteners used in mechanical engineering	2	1
21911	Demonstrate knowledge of safety on engineering worksites	2	1
21912	Apply safe working practices on an engineering worksite	2	2
21913	Shift loads in engineering installation, maintenance, and fabrication work	2	2
22897	Demonstrate and apply knowledge of mechanical fitting	3	5
22900	Demonstrate knowledge of job costing in mechanical engineering	4	2

Domain Engineering Drawing and Design

Id	Title	Level	Credit
2430	Draw and interpret engineering sketches under supervision	2	4
2432	Construct engineering plane geometric shapes under supervision	2	3
21910	Interpret mechanical engineering drawings	3	5

Domain Engineering Machining and Toolmaking

Id	Title	Level	Credit
22908	Demonstrate and apply knowledge of manually controlled machining operations	3	10

Domain Fluid Power – Hydraulics

Id	Title	Level	Credit
20611	Demonstrate knowledge of hydraulics and hydraulic power systems	2	5

Domain Fluid Power – Pneumatics

Id	Title	Level	Credit
20612	Demonstrate knowledge of pneumatics and pneumatic power systems	2	5

Domain Maintenance and Diagnostics in Mechanical Engineering

Id	Title	Level	Credit
2401	Safely shut down and isolate machines and equipment	3	3
19873	Demonstrate knowledge of bearings used in machines and equipment	3	8

Domain Mechanical Assembly

Id	Title	Level	Credit
2387	Assemble mechanical components under supervision	2	2

Domain Welding

Id	Title	Level	Credit
21907	Demonstrate and apply knowledge of safe welding procedures under supervision	2	3

Field Health
 Subfield Health Studies
 Domain Core Health

Id	Title	Level	Credit
6401	Provide first aid	2	1
6402	Provide resuscitation level 2	1	1

Subfield Occupational Health and Safety
 Domain Occupational Health and Safety Practice

Id	Title	Level	Credit
497	Demonstrate knowledge of workplace health and safety requirements	1	3

Electricity Supply Strand**Compulsory**

All the standards listed below are required.

Field Engineering and Technology
 Subfield Electricity Supply
 Domain Electricity Supply – Power System Maintenance

Id	Title	Level	Credit
6975	Repair and overhaul bearings of rotating machines of 100kVA and above	4	8
6984	Repair and overhaul lubrication systems for rotating plant of 100kVA and over	4	5
10395	Repair and overhaul compressed air systems	4	5
10397	Repair and overhaul cooling systems	4	5
10414	Repair and overhaul pumps	5	8
10420	Repair and overhaul valves	4	5

Subfield Mechanical Engineering
Domain Engineering Machining and Toolmaking

Id	Title	Level	Credit
2714	Produce components by performing engineering turning operations	3	15

Domain Maintenance and Diagnostics in Mechanical Engineering

Id	Title	Level	Credit
2402	Demonstrate knowledge of lubricants and lubrication systems, and inspect lubrications systems	3	5
2403	Select and replace static seals in machines and equipment	3	5
2408	Align machinery and equipment	4	8
2409	Level machinery and equipment	3	4

Field Humanities
Subfield Communication Skills
Domain Interpersonal Communications

Id	Title	Level	Credit
1277	Communicate information in a specified workplace	2	3
9677	Participate in a group/team which has an objective(s)	2	3

Domain Writing

Id	Title	Level	Credit
3492	Write a short report	2	3

Elective

A minimum of 100 credits is required from standards in the following domains, with a minimum of 5 credits at level 4 or above.

Field	Subfield	Domain
Engineering and Technology	Mechanical Engineering	Engineering Machining and Toolmaking
		Fluid Power - Hydraulics
		Fluid Power - Pneumatics
		Maintenance and Diagnostics In Mechanical Engineering
		Mechanical Installation
	Electricity Supply	Electricity Supply - Core Skills
		Electricity Supply - Distribution Networks
		Electricity Supply - HVDC
		Electricity Supply - Power System Maintenance

Fitting and Machining Strand

Compulsory

All the standards listed below are required.

Field Engineering and Technology
 Subfield Mechanical Engineering
 Domain Engineering Core Skills

Id	Title	Level	Credit
22898	Demonstrate and apply knowledge of machine levelling and alignment	3	3
22899	Demonstrate knowledge of mechanical power transmission	3	3

Domain Engineering Machining and Toolmaking

Id	Title	Level	Credit
2714	Produce components by performing engineering turning operations	3	15
2715	Produce components by performing engineering milling operations	3	15
22909	Demonstrate and apply knowledge of setting and operating CNC engineering machines	3	4
22910	Demonstrate and apply knowledge of programming CNC engineering machines	3	4

Domain Maintenance and Diagnostics in Mechanical Engineering

Id	Title	Level	Credit
2403	Select and replace static seals in machines and equipment	3	5
2406	Dismantle, inspect, assemble and test components	4	6
22901	Demonstrate knowledge of pumps, fans, and valves used in engineering	3	3

Domain Mechanical Assembly

Id	Title	Level	Credit
22914	Assemble and fit precision components	3	10

Domain Welding

Id	Title	Level	Credit
22906	Demonstrate and apply knowledge of welding low carbon steel	3	3
22907	Demonstrate and apply knowledge of welding aluminium and stainless steel	3	3

Elective

A minimum of 98 credits is required from standards in the following domains, with a minimum of 43 credits at level 4 or above.

Field	Subfield	Domain
Engineering and Technology	Mechanical Engineering	Applied Principles of Mechanical Engineering

Field	Subfield	Domain
		Engineering - Fabrication
		Engineering - Materials
		Engineering - Measurement
		Engineering - Robotics
		Engineering Core Skills
		Engineering Drawing and Design
		Engineering Machining and Toolmaking
		Engineering Patternmaking
		Fluid Power - Hydraulics
		Fluid Power - Pneumatics
		Gunsmithing
		Maintenance and Diagnostics In Mechanical Engineering
		Mechanical Assembly
		Mechanical Commissioning
		Mechanical Engineering Inspection
		Mechanical Installation
		Metal Casting
		Metal Surface Finishing
		Welding
Sciences	Mathematics	Algebra
		Calculus
		Trigonometry
Service Sector	Maritime	Marine Engineering
		Maritime Engineering
	Rail Transport	Rail Core Skills

General Engineering Strand

Compulsory

All the standards listed below are required.

Field Engineering and Technology

Subfield Mechanical Engineering

Domain Engineering Core Skills

Id	Title	Level	Credit
22898	Demonstrate and apply knowledge of machine levelling and alignment	3	3
22899	Demonstrate knowledge of mechanical power transmission	3	3

Domain Maintenance and Diagnostics in Mechanical Engineering

Id	Title	Level	Credit
2402	Demonstrate knowledge of lubricants and lubrication systems, and inspect lubrications systems	3	5
2403	Select and replace static seals in machines and equipment	3	5

Id	Title	Level	Credit
2406	Dismantle, inspect, assemble and test components	4	6
22901	Demonstrate knowledge of pumps, fans, and valves used in engineering	3	3

Domain Welding

Id	Title	Level	Credit
22906	Demonstrate and apply knowledge of welding low carbon steel	3	3

Elective

A minimum of 124 credits is required from standards in the following domains, with a minimum of 43 credits at level 4 or above.

Field	Subfield	Domain
Engineering and Technology	Mechanical Engineering	Applied Principles of Mechanical Engineering
		Engineering - Fabrication
		Engineering - Materials
		Engineering - Measurement
		Engineering - Robotics
		Engineering Core Skills
		Engineering Drawing and Design
		Engineering Machining and Toolmaking
		Engineering Patternmaking
		Fluid Power - Hydraulics
		Fluid Power - Pneumatics
		Gunsmithing
		Maintenance and Diagnostics In Mechanical Engineering
		Mechanical Assembly
		Mechanical Commissioning
		Mechanical Engineering Inspection
		Mechanical Installation
		Metal Casting
		Metal Surface Finishing
		Welding
Sciences	Mathematics	Algebra
		Calculus
		Trigonometry
Service Sector	Maritime	Marine Engineering
		Maritime Engineering
	Rail Transport	Rail Core Skills

Machining Strand**Compulsory**

All the standards listed below are required.

Field Engineering and Technology
 Subfield Mechanical Engineering
 Domain Engineering – Materials

Id	Title	Level	Credit
4800	Demonstrate knowledge of heat treatment for engineering steels	4	5

Domain Engineering Drawing and Design

Id	Title	Level	Credit
2433	Create simple engineering drawings using computer aided design (CAD) software	2	6

Domain Engineering Machining and Toolmaking

Id	Title	Level	Credit
2714	Produce components by performing engineering turning operations	3	15
2715	Produce components by performing engineering milling operations	3	15
22909	Demonstrate and apply knowledge of setting and operating CNC engineering machines	3	4
22910	Demonstrate and apply knowledge of programming CNC engineering machines	3	4

Elective

A minimum of 123 credits is required from standards in the following domains, with a minimum of 44 credits at level 4 or above.

Field	Subfield	Domain
Engineering and Technology	Mechanical Engineering	Applied Principles of Mechanical Engineering
		Engineering - Fabrication
		Engineering - Materials
		Engineering - Measurement
		Engineering - Robotics
		Engineering Core Skills
		Engineering Drawing and Design
		Engineering Machining and Toolmaking
		Engineering Patternmaking
		Fluid Power - Hydraulics
		Fluid Power - Pneumatics
		Gunsmithing
		Mechanical Assembly
		Metal Casting

Field	Subfield	Domain
		Metal Surface Finishing
		Welding
Manufacturing	Plastics Processing Technology	Plastics Materials
Sciences	Mathematics	Algebra
		Calculus
		Trigonometry

Maintenance Engineering Strand

Compulsory

All the standards listed below are required.

Field Engineering and Technology
 Subfield Mechanical Engineering
 Domain Engineering Core Skills

Id	Title	Level	Credit
22898	Demonstrate and apply knowledge of machine levelling and alignment	3	3
22899	Demonstrate knowledge of mechanical power transmission	3	3

Domain Maintenance and Diagnostics in Mechanical Engineering

Id	Title	Level	Credit
2397	Service machines and equipment	2	4
2400	Describe the principles of static and dynamic balancing, and carry out static balancing	3	4
2402	Demonstrate knowledge of lubricants and lubrication systems, and inspect lubrications systems	3	5
2403	Select and replace static seals in machines and equipment	3	5
2406	Dismantle, inspect, assemble and test components	4	6
2407	Monitor the condition of machinery and equipment	4	4
2408	Align machinery and equipment	4	8
2409	Level machinery and equipment	3	4
22901	Demonstrate knowledge of pumps, fans, and valves used in engineering	3	3
22902	Demonstrate knowledge of process control in mechanical engineering	4	3
22903	Demonstrate knowledge of modern manufacturing concepts and their significance in plant maintenance	4	3
22904	Demonstrate knowledge of modern engineering plant maintenance practice	4	5
22905	Perform planned maintenance work on mechanical equipment	4	5

Domain Mechanical Assembly

Id	Title	Level	Credit
22914	Assemble and fit precision components	3	10

Domain Welding

Id	Title	Level	Credit
22906	Demonstrate and apply knowledge of welding low carbon steel	3	3
22907	Demonstrate and apply knowledge of welding aluminium and stainless steel	3	3

Elective

A minimum of 71 credits is required from standards in the following domains, with a minimum of 15 credits at level 4 or above.

Field	Subfield	Domain
Engineering and Technology	Mechanical Engineering	Applied Principles of Mechanical Engineering
		Engineering - Materials
		Engineering - Measurement
		Engineering - Robotics
		Engineering Core Skills
		Engineering Drawing and Design
		Engineering Machining and Toolmaking
		Fluid Power - Hydraulics
		Fluid Power - Pneumatics
		Gunsmithing
		Maintenance and Diagnostics In Mechanical Engineering
		Mechanical Assembly
		Mechanical Commissioning
		Mechanical Engineering Inspection
		Mechanical Installation
		Welding
Manufacturing	Manufacturing Skills	Competitive Manufacturing
Sciences	Mathematics	Algebra
		Calculus
		Trigonometry
Service Sector	Maritime	Marine Engineering
		Maritime Engineering
	Rail Transport	Rail Core Skills

Toolmaking Strand**Compulsory**

All the standards listed below are required.

Field Engineering and Technology
 Subfield Mechanical Engineering
 Domain Engineering – Materials

Id	Title	Level	Credit
4800	Demonstrate knowledge of heat treatment for engineering steels	4	5

Domain Engineering Drawing and Design

Id	Title	Level	Credit
2433	Create simple engineering drawings using computer aided design (CAD) software	2	6
2436	Create simple three-dimensional engineering models under supervision	3	5

Domain Engineering Machining and Toolmaking

Id	Title	Level	Credit
2714	Produce components by performing engineering turning operations	3	15
2715	Produce components by performing engineering milling operations	3	15
18542	Manufacture single stage tooling for industry	3	15
18543	Manufacture multi-stage tooling for industry	4	15
22909	Demonstrate and apply knowledge of setting and operating CNC engineering machines	3	4
22910	Demonstrate and apply knowledge of programming CNC engineering machines	3	4
22911	Demonstrate knowledge of toolmaking principles	3	2

Domain Mechanical Assembly

Id	Title	Level	Credit
22913	Assemble and fit precision tooling	3	10

Elective

A minimum of 86 credits is required from standards in the following domains, with a minimum of 29 credits at level 4 or above.

Field	Subfield	Domain
Engineering and Technology	Mechanical Engineering	Applied Principles of Mechanical Engineering
		Engineering - Fabrication
		Engineering - Materials
		Engineering - Measurement
		Engineering - Robotics
		Engineering Core Skills

Field	Subfield	Domain
		Engineering Drawing and Design
		Engineering Machining and Toolmaking
		Engineering Patternmaking
		Fluid Power - Hydraulics
		Fluid Power - Pneumatics
		Gunsmithing
		Mechanical Assembly
		Metal Casting
		Metal Surface Finishing
Manufacturing	Plastics Processing Technology	Plastics Materials
Sciences	Mathematics	Algebra
		Calculus
		Trigonometry

Transition Arrangements

Version 2

This revision was made to incorporate an additional strand in the qualification for the purpose of training mechanical personnel who are engaged in installing, maintaining and servicing electricity generating plant and equipment. The core skills and knowledge required by this trade were a close fit to the core skills in this qualification. Following negotiations between Competenz and the Electricity Supply Industry Training Organisation (ESITO), a Memorandum of Understanding was signed which provides for cooperation between the two organisations for the purpose of the additional strand.

Changes to structure and content

- a sixth strand of Electricity Supply was added to the qualification;
- Unit 497 title was adjusted and credit increased from 1 to 3;
- strand elective credit requirements were reduced by 2 to keep total credit the same;
- Electricity Supply Industry Training Organisation was added to Other Standard Setting Bodies and Logos.

The transition exemptions and other provisions of Version 1 will continue to apply to Version 2.

For detailed information see [Review Summaries](#) on the Qualifications Authority website.

Previous versions of the qualification

Version 1

Version 1 of this qualification replaced the National Certificate in Maintenance and Diagnostics in Mechanical Engineering (Level 4) [Ref: 0125] and the National Certificate in Engineering Machining and Toolmaking (Level 4) [Ref: 0123].

Summary of differences between the qualifications

- Title of new qualification changed to better reflect current nature of the industry.
- Five strands introduced to cater for current industry requirements and occupations.
- Structure changed to core compulsory (116 credits), strand compulsory, and strand elective components.
- Overall credit values range from 270 to 300 credits, depending on the strand.
- Common skills of the two former qualifications were updated and combined into a compulsory core section to provide a common set of foundation skills.
- Minimum number of level 4 credits required to gain the qualification was raised to 55.
- New standards reflect current industry requirements and facilitate better delivery and assessment.
- Some elective standards are now compulsory and vice versa.
- New qualification includes transitions for standards that replace earlier standards.
- Elective domains and standards not related to mechanical engineering have been removed.

All new trainees or apprentices from 2007 will be enrolled in the new qualification.

People currently working towards the National Certificate in Maintenance and Diagnostics in Mechanical Engineering (Level 4) [Ref: 0125] or the National Certificate in Engineering Machining and Toolmaking (Level 4) [Ref: 0123] are encouraged to complete these qualifications by 2012. The last date for award will be 31 December 2012. Existing courses will be progressively phased out from 2007. Provision will be made for final Year 2 and 3 courses in 2008 and 2009 respectively, if needed, for people who may have failed to complete earlier.

Whilst these provisions should cater for most situations, the following exemptions are available for those who need to transition to the new qualification. The table includes exemptions arising from earlier replacements of unit standards. Note that many of the standards in the earlier qualifications are also contained in the replacement qualification, either as listed or as possible elective standards.

Credit for	Exempt from
2388	22913 and 22914
2389	21909
2405	12 credits at Level 4 from domain of Maintenance and Diagnostics in Mechanical Engineering
2405	19873
2431	2433
2434	2430 and 2433 and 21910
2670	21907
2711	22910
2824	21911 and 21912
3241	2 credits at Level 2 from domain of Mechanical Installation
3242	1 credit at Level 2 from domain of Mechanical Installation
3243	6 credits at Level 3 from domain of Mechanical Installation
4432 and 4434	21908
4795	20917
4796	20799

Credit for	Exempt from
4798	4797
4810	12 credits at Level 2 from domain of Engineering Machining and Toolmaking
4811	12 credits at Level 3 from domain of Engineering Machining and Toolmaking
5223 and 5226 and 5251	21905
5228 and 5226 and 5251	21905
17344	20612
17345	20611

These exemptions will be available up to 31 December 2011.

Competenz will publicise these arrangements in the trade press and the Competenz website <http://www.competenz.org.nz/>, and by direct communication with apprentices and their employers.

Industry will continue to recognise the former qualifications, and there is no requirement for qualified trades people to 'upgrade' to the new qualification.

It is not intended that anyone be disadvantaged by this review, and the above arrangements have been designed for a smooth transition. However, anyone who feels they have been disadvantaged may appeal to Competenz at the address below.

NQF Registration Information

Process	Version	Date	Last Date for Award
Registration	1	November 2006	31 December 2012
Revision	2	MMM2008	N/A

Standard Setting Body

Competenz
PO Box 62 561
CENTRAL PARK
Auckland

Telephone 0800 275 455
Email qualifications@competenz.org.nz

Any person or organisation may contribute to the review of this qualification by sending feedback to Competenz at the above address.

The review of this qualification is planned to take place in 2011.

Other standard setting bodies whose standards are included in the qualification

Electricity Supply Industry Training Organisation
New Zealand Industry Training Organisation
NZQA

Certification

The qualification will display the logos of the New Zealand Qualifications Authority and either Competenz or the Electricity Supply Industry Training Organisation.

Classification

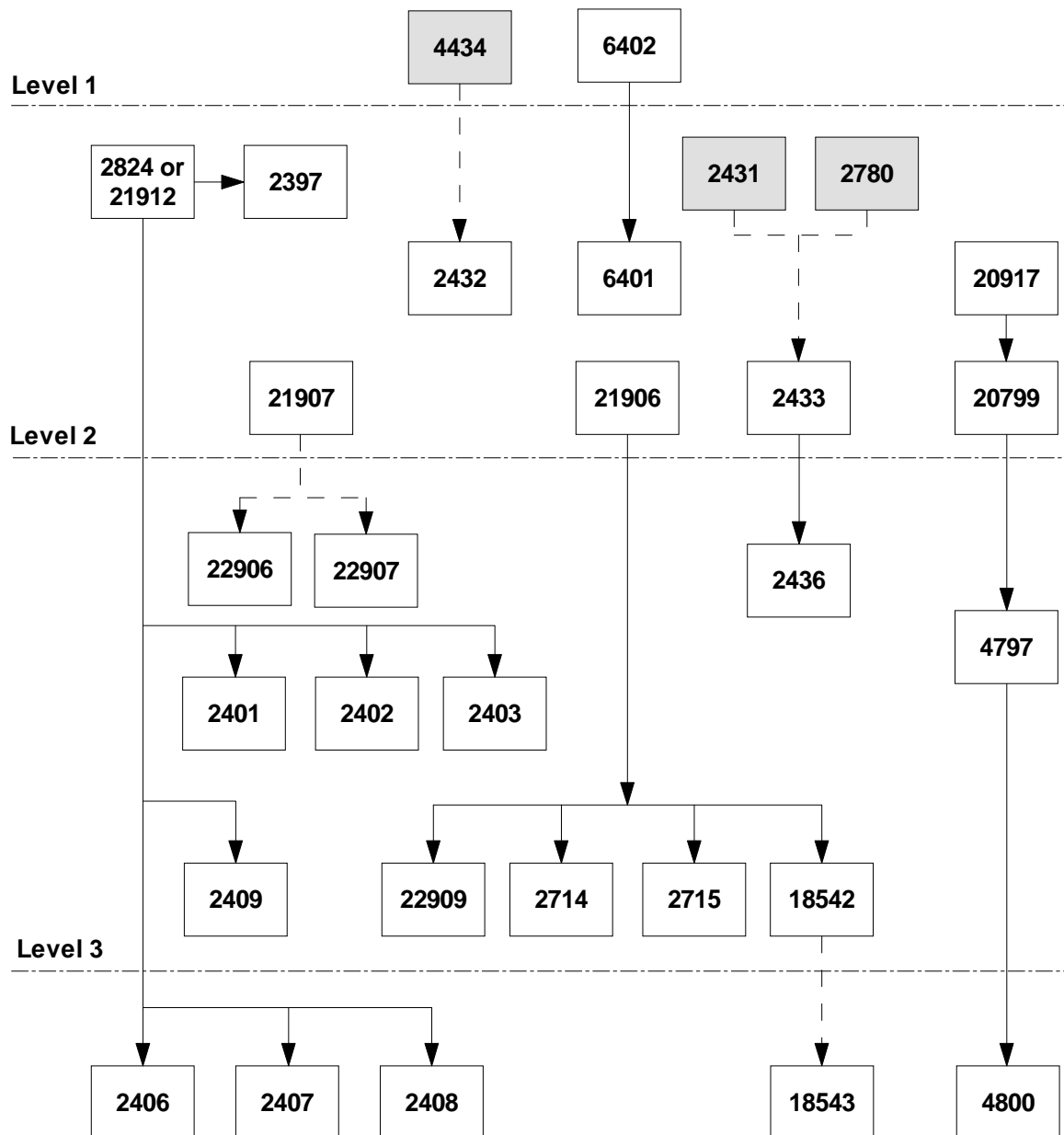
This qualification is classified according to the NQF classification system and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

NQF Classification		NZSCED	
Code	Description	Code	Description
212	Engineering and Technology/Mechanical Engineering	030701	Engineering and Related Technologies/Mechanical and Industrial Engineering and Technology/Mechanical Engineering

Quality Management Systems

Providers and Industry Training Organisations must be accredited by a recognised Quality Assurance Body before they can register credits from assessment against standards. Accredited providers and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Accreditation requirements and the moderation system are outlined in the associated Accreditation and Moderation Action Plan (AMAP) for each standard.

Prerequisite Diagram



Key

