National Certificate in Electronics Technology (Level 3)

Level **3**

Credits **40**

This qualification has been **reviewed**. The last date to meet the requirements is 31 December 2020

Transition Arrangements

This qualification has been replaced by the New Zealand Certificate in Electronics Technology (Level 3) [Ref: 3634].

The last date for entry into programmes leading to the qualification is 31 December 2019. The last date for assessment of programmes leading to this qualification is 31 December 2020, at which time it will be discontinued.

For detailed information see Review Summaries on the NZQA website.

NZQF National Qualification Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	March 2003	December 2009
Revision	2	October 2004	December 2009
Review	3	June 2007	December 2012
Review	4	June 2010	December 2020
Revision	5	July 2014	December 2020
Review	6	August 2017	December 2020

Standard Setting Body

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National Certificate in Electronics Technology (Level 3)

Level **3**

Credits **40**

Purpose

This qualification builds on the National Certificate in Electronics Technology (Level 2) [Ref: 0240] and is designed for people interested in electronics who may wish to pursue further training and employment in this field. The qualification has been developed for use in two training environments particularly for people who have completed the National Certificate in Electronics Technology (Level 2) [Ref: 0240]:

- in senior secondary schools, where a one year course is offered at Year 13
- in private training establishments and polytechnics, where it serves as a pre-employment qualification for those seeking employment in the electronics industry, or as the first stage in an apprenticeship in the electrotechnology industry.

The compulsory component recognises skills and knowledge in the construction, operation, and performance of:

- electronic programmable circuits
- electronic devices
- electronic prototypes.

The elective component allows candidates to select skills and knowledge relevant to their training needs and employment goals.

Elective 1 recognises skills and knowledge in electronics technology from a minimum of two of the following areas:

- electronic product development
- ADC and DAC digital electronic interface devices
- logic circuits.

Elective 2 recognises a range of skills and knowledge related to computing, engineering and technology, and science from both achievement standards and unit standards.

After achieving the National Certificate in Electronics Technology (Level 3) [Ref: 1005], people interested in pursuing further training and employment in this field may wish to continue with any of the following:

- take up an apprenticeship in electronics or electrical industries and study for the National Certificates in Electronic Engineering at Levels 3 and 4 [Refs: 1093 and 1123] or the National Certificates in Electrical Engineering at Levels 2, 3, 4, and 5 [Refs: 0174, 0223, 1195, and 0951]
- study for the New Zealand Diploma in Engineering [Ref: 112950]
- study for an engineering degree.

Special Notes

Recommended: National Certificate in Electronics Technology (Level 2) [Ref: 0240], or demonstrate equivalent knowledge and skills.

Credit Range

	Compulsory	Elective	
		Elective 1	Elective 2
Level 3 or above credits	13	6-9	18-21
Minimum totals	13	27	

Requirements for Award of Qualification

Award of NZQF National 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 on the New Zealand Qualifications Authority (NZQA) website: http://www.nzqa.govt.nz/qualifications-standards/standards/standards-exclusion-list/.

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.

Summary of Requirements

- Compulsory standards
- Elective – A minimum of 27 credits as specified

Detailed Requirements

Compulsory

The following standards are required

Engineering and Technology > Electronic Engineering > Electronics Technology

ID	Title	Level	Credit
26119	Construct, and report on the performance of, a simple electronic programmable circuit	3	4
26120	Describe and construct circuits to demonstrate the operation and properties of electronic devices	3	3
26121	Plan, construct, modify, and report on an electronic prototype	3	6

Elective

A minimum of 27 credits at Level 3 or above
From the following sets

- Elective 1
- Elective 2

Elective 1
A minimum of 6 credits

Engineering and Technology > Electronic Engineering > Electronics Technology

ID	Title	Level	Credit
9221	Demonstrate knowledge of the development of an electronic product	3	3
26122	Demonstrate knowledge of and build circuits using digital electronic devices that interface with ADC and DAC functions	3	3
26123	Demonstrate knowledge of the practical applications of logic circuits	3	3

Elective 2
A minimum of 18 credits at Level 3 or above

Field	Subfield	Domain
Computing and Information Technology	Computing	Any
Engineering and Technology	Electrical Engineering	Any
	Electronic Engineering	Any
	Technology	Digital Technologies
		Generic Technology
Sciences	Mathematics	Any
	Science	Chemistry
		Physics
		Science - Core
	Statistics and Probability	Any

Transition Arrangements

Version 5

Version 5 was issued following a revision of the qualification to maintain achievability for candidates.

Changes to structure and content

- Expired standards 90613, 90620, 90676, 90677, 90680, 90681, 90684, 90685, and 90792 were removed from the elective section.
- The domain *Engineering and Technology > Technology > Generic Technology* was included in the elective section to replace the expiring domain *Engineering and Technology > Technology > Technology – General Education*.
- The domain *Engineering and Technology > Technology > Digital Technologies* was added to the elective section.
- Reverse transition arrangements were included to allow candidates to complete version 4 of the qualification.
- Qualification references were updated.

- SSB details were updated.

For detailed information see Review Summaries on the NZQA website.

Existing trainees may either complete the requirements of version 4 of the qualification or transfer to version 5.

All new trainees will be enrolled in programmes leading to version 5 of the qualification.

This qualification contains standards that replace earlier standards. For the purposes of this qualification, people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement standards – see table below.

Credit for	Exempt from
19743	26120
19744	26122

This qualification contains a classification that replaced an earlier classification. For the purposes of this qualification people with credit for standards listed in the expiring domain can use them to meet the relevant qualification elective requirements - see table below.

Credit for	Exempt from
Engineering and Technology > Technology > Technology - General Education	Engineering and Technology > Technology > Generic Technology

It is anticipated that no existing candidates will be disadvantaged by these transition arrangements. However, anyone who feels that they have been disadvantaged may appeal to The Skills Organisation at the address below:

Reverse transition

For candidates who choose to complete version 4 of this qualification, the following reverse transition arrangement has been included to allow existing candidates to complete the qualification using the standards from the replacement classification as credit for the expired standards – see table below.

Credit for	Exempt from
Engineering and Technology > Technology > Generic Technology	Standards listed in Set A from the Engineering and Technology > Technology > Technology - General Education domain

Previous versions of the qualification

Version 4 was issued following a review of *Electronics Technology* unit standards. The early review was undertaken to bring the unit standards up to date for this rapidly moving industry and reflected two years of training, assessment, and industry experience. It also took into account the anticipated future skill requirements of the industry.

Version 3 was issued following the review of the *Electronics Technology* unit standards. The facility for candidates with relevant passes in New Zealand Bursary subjects to claim credit exemptions for the elective section was removed.

Version 2 of the qualification was issued following a revision in which the elective requirements were expanded; and the subfield and domain of listed standards was updated to reflect the results of standard reviews.

Certification

The certificate will display the logos of NZQA, The Skills Organisation and the accredited organisation.

Classification

This qualification is classified according to the classification system listed on the Directory of Assessment Standards (DAS) and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		**NZSCED**	
Code	**Description**	**Code**	**Description**
1893	Engineering and Technology > Electronic Engineering > Electronics Technology	031303	Engineering and Related Technologies > Electrical and Electronic Engineering and Technology > Electronic Engineering

Quality Management Systems
Providers and Industry Training Organisations must be granted consent to assess by a recognised Quality Assurance Body before they can register credits from assessment against standards. Organisation with consent to assess and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Consent to assess requirements and the moderation system are outlined in the associated Consent and Moderation Requirements (CMR) for each standard.