

National Certificate in Aeronautical Engineering (Specialist Support) with optional strands in Aeronautical Composites; Aeronautical Electroplating; Aeronautical Machining; Aeronautical Non Destructive Testing; Aircraft Furnishings and Equipment; Aircraft Mechanical; Aircraft Painting; Aircraft Powerplant; Aircraft Structures; Armament; Avionics; and Rotorcraft

Level 4

Credits 105

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

Transition Arrangements

This qualification has been reviewed and replaced by the New Zealand Certificate in Aeronautical Engineering (Specialist Support) (Level 4) with strands in General Aviation; Aeronautical Composites; Aeronautical Electroplating; Aeronautical Machining; Aeronautical Non Destructive Testing; Aircraft Furnishings and Equipment; Aircraft Mechanical; Aircraft Painting; Aircraft Powerplant; Aircraft Structures; Armament; Avionics; and Rotorcraft [Ref: 2900].

The last date for entry into programmes leading to this qualification is 31 December 2017. The last date for assessment of this qualification is 31 December 2020, when the qualification will be discontinued.

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

NQF Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	July 1996	December 1999
Review	2	November 1997	December 2010
Revision	3	August 2002	December 2010
Review	4	March 2008	December 2020
Review	5	October 2015	December 2020

Standard Setting Body

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National Certificate in Aeronautical Engineering (Specialist Support) with optional strands in Aeronautical Composites; Aeronautical Electroplating; Aeronautical Machining; Aeronautical Non Destructive Testing; Aircraft Furnishings and Equipment; Aircraft Mechanical; Aircraft Painting; Aircraft Powerplant; Aircraft Structures; Armament; Avionics; and Rotorcraft

Level	4
Credits	105

Purpose

This qualification incorporates eight compulsory core unit standards common to the award of the National Certificate in Aeronautical Engineering with strands in Aeronautical Non Destructive Testing, Armament, Avionic Electrical Repair, Avionic Instrument Repair, Avionic Maintenance, Avionic Radio Repair, Aircraft Mechanical, Aircraft Powerplant, Rotorcraft, and Aircraft Structures [Ref: 0192], the National Certificate in Aircraft Servicing [Ref: 0171], and the National Certificate in Aeronautical Engineering (Related Technology) [Ref: 0381], and is another step on the pathway for people interested in a career in aeronautical engineering.

The certificate is intended for people who currently hold a National Certificate in a subfield other than aeronautical engineering, or equivalent, for example general engineering, or allied trades, and who are using the skills contained in that qualification in the aeronautical engineering industry.

People who achieve this qualification have the ability to undertake a range of aeronautical engineering specialist support tasks of a limited nature in accordance with the requirements of Part 43 and/or Part 145 of the Civil Aviation Rules 1990. The general qualification covers broad knowledge and skills relevant across all sectors of the aeronautical engineering industry, and is particularly useful within the broad spectrum of the General Aviation sector. The optional strands embedded in the qualification recognise the specialised knowledge and skill in the sector chosen.

There are two paths in this qualification to achieve the required total of 105 credits.

- a A general aeronautical engineering (specialist support) qualification, where 105 credits are required, with 55 credits coming from the compulsory unit standards, and the remaining 50 credits coming from the specified domains in the subfield Aeronautical Engineering, resulting in award of the National Certificate in Aeronautical Engineering (Specialist Support) [Ref: 0191]; or
- b A specialised general engineering (specialist support) qualification, with 55 credits coming from the compulsory unit standards, and the remaining 50 credits coming from the domain or domains appropriate to one of the strands, resulting in, for example, award of the National Certificate in Aeronautical Engineering (Specialist Support) with the optional Aircraft Mechanical strand [Ref: 0191].

The structure of the qualification allows trainees and employers the flexibility to tailor programmes to meet individual or employer skill needs that reflect the diverse roles in the aeronautical engineering industry.

Credit Range

	Core Compulsory	Aeronautical Engineering Elective	Optional Strands
Level 1 credits	1	0-10	0-10
Level 2 credits	18	0-10	0-10
Level 3 credits	36	0-10	0-10
Level 4 credits	-	40-50	40-50
Minimum totals	55	50	50
Level of qualification	-	4	4

Requirements for Award of Qualification

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 section 7 of the New Zealand Qualifications Authority (NZQA) *Rules and Procedures* publications available at <http://www.nzqa.govt.nz/ncea/acrp/index.html>.

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

- A minimum of 105 credits
- Compulsory Standards
- Aeronautical Engineering Elective – A minimum of 50 credits as specified
 - Of which a minimum of 40 credits at Level 4 or above

The following strands are optional

- Aeronautical Composites Strand
- Aeronautical Electroplating Strand
- Aeronautical Machining Strand
- Aeronautical Non Destructive Testing Strand
- Aircraft Furnishings and Equipment Strand
- Aircraft Mechanical Strand
- Aircraft Painting Strand
- Aircraft Powerplant Strand
- Aircraft Structures Strand
- Armament Strand

- Avionics Strand
- Rotorcraft Strand

Detailed Requirements

Compulsory

The following standards are required

Engineering and Technology > Aeronautical Engineering > Aeronautical Engineering - Core

Id	Title	Level	Credit
3894	Use aeronautical industry publications and documentation	3	6
3895	Apply aeronautical engineering maintenance practices	3	20
3896	Select, use, and maintain aeronautical engineering tools and equipment	3	10
5428	Demonstrate knowledge of aircraft construction and maintenance practices	2	14

Engineering and Technology > Mechanical Engineering > Engineering Core Skills

Id	Title	Level	Credit
21911	Demonstrate knowledge of safety on engineering worksites	2	1
21912	Apply safe working practices on an engineering worksite	2	2

Health > Health Studies > Core Health

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

Aeronautical Engineering Elective

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aeronautical Armament
		Aeronautical Composites
		Aeronautical Electroplating
		Aeronautical Machining
		Aeronautical Non Destructive Testing
		Aeronautical Storekeeping

Field	Subfield	Domain
		Aircraft Furnishings and Equipment
		Aircraft Mechanical Maintenance
		Aircraft Mechanical Repair and Overhaul
		Aircraft Painting
		Aircraft Powerplant Maintenance
		Aircraft Powerplant Repair and Overhaul
		Aircraft Servicing
		Aircraft Structures
		Avionic Electrical Repair
		Avionic Instrument Repair
		Avionic Maintenance
		Avionic Radio Repair
		Helicopter Maintenance
		Helicopter Repair and Overhaul

Aeronautical Composites Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aeronautical Composites

Aeronautical Electroplating Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aeronautical Electroplating

Aeronautical Machining Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aeronautical Machining

Aeronautical Non Destructive Testing Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aeronautical Non Destructive Testing

Aircraft Furnishings and Equipment Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aircraft Furnishings and Equipment

Aircraft Mechanical Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aircraft Mechanical Maintenance
		Aircraft Mechanical Repair and Overhaul

Aircraft Painting Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aircraft Painting

Aircraft Powerplant Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aircraft Powerplant Maintenance
		Aircraft Powerplant Repair and Overhaul

Aircraft Structures Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aircraft Structures

Armament Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Aeronautical Armament

Avionics Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Avionic Electrical Repair
		Avionic Instrument Repair
		Avionic Maintenance
		Avionic Radio Repair

Rotorcraft Optional Strand

A minimum of 50 credits

- Of which a minimum of 40 credits at Level 4 or above

Field	Subfield	Domain
Engineering and Technology	Aeronautical Engineering	Helicopter Maintenance
		Helicopter Repair and Overhaul

Transition Arrangements

Version 4

Version 4 was issued following review in order to update changes to content.

Changes to structure and content

- the qualification structure has changed to make all strands optional, and to add the Aeronautical Engineering elective;
- Aeronautical Electroplating has been added as a new strand;
- additional domains have been added to the avionic strand;
- compulsory unit standard 2824 has been replaced by unit standards 21911 and 21912;
- unit standards 3894 and 3896 have been raised to Level 3.

For detailed information see Review Summaries on the NZQA website.

People currently enrolled in programmes leading to the award of version 3 of this qualification may either complete that version or transfer to version 4. All versions of this qualification will be recognised by ServiceIQ.

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
2824	21911, 21912

This qualification contains classifications that replace earlier classifications. For the purposes of this qualification people who have gained credit for the standards listed in the lapsing classification are exempt from the requirement to gain credit for the standards in the new classifications.

Credit for	Exempt from
Engineering and Technology > Aeronautical Engineering > Avionic Repair - Lapsing	Engineering and Technology > Aeronautical Engineering > Avionic Electrical Repair Engineering and Technology > Aeronautical Engineering > Avionic Instrument Repair Engineering and Technology > Aeronautical Engineering > Avionic Radio Repair

Previous versions of the qualification

Version 3 was issued following a revision. The requirement for the Metal Surface Finishing Strand was amended to a minimum of 50 credits at level 3 from the *Metal Surface Finishing* domain; the level of the qualification was updated to 3 or 4 depending on which strand was selected; titles of *core health* unit standards were updated.

Version 2 was issued following a review. The main changes included structuring the elective sets into strands, adding unit standard 3895 to the Core Compulsory, thus raising the overall credit total by 20 credits, and substituting unit standard 6401 for unit standard 6400.

Other standard setting bodies whose standards are included in the qualification

Competenz
NZQA

Certification

The certificate will display the logos of NZQA, the provider and ServiceIQ.

Classification

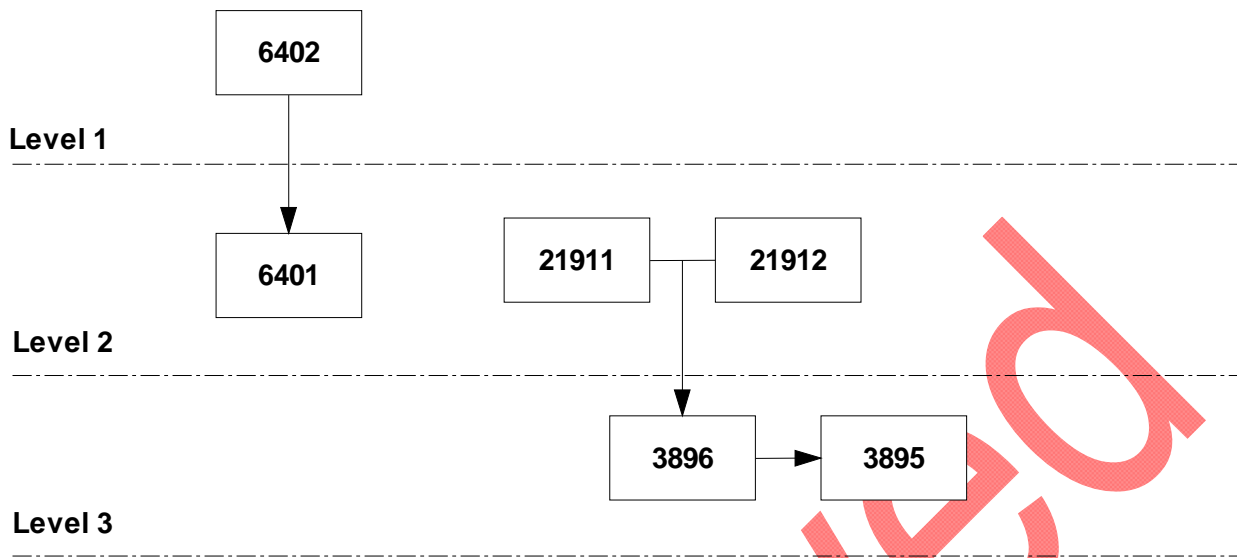
This qualification is classified according to the NQF classification system and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		NZSCED	
Code	Description	Code	Description
198	Engineering and Technology > Aeronautical Engineering	031503	Engineering and Related Technologies > Aerospace Engineering and Technology > Aircraft Maintenance 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



Reviewed