



WAIHANGA ARA RAU

**Construction and
Infrastructure**

Workforce Development Council

ELECTRICAL ENGINEERING

**EXEMPTIONS AND CREDIT TRANSFER FOR ELECTRICAL
ENGINEERING THEORY GRADUATES**

VERSION 2 | APRIL 2024

Approved by	GM Assurance
Date Approved	3 April 2024

Version	Date	Nature of Amendment
1.0	26/08/2022	New document created, based on tables supplied by Skills TITO.
2.0	3/04/2024	Updated based on feedback from Te Pūkenga-EarnLearn and ETCO

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1. EXEMPTIONS

Exemptions and credit transfer for Electrical Engineering Theory graduates

This exemption for First Aid unit standards applies.

Credit for	Exempt from
26551 Provide first aid for life threatening conditions (Level 2) (1 Credit)	6402 Provide basic life support (Level 1) (1 Credit)
26552 Demonstrate knowledge of common first aid conditions and how to respond to them (Level 2) (1 Credit)	6401 Provide first aid (Level 2) (1 Credit)

The next table applies to graduates of non-unit standard-based programmes aligned to the New Zealand Certificate in Electrical Engineering Theory (Level 3) [Ref: 2387] and who are transitioning into a programme leading towards the New Zealand Certificate in Electrical Trade (Level 4) with strands in General Electrical, and Electricity Supply (Level 4) [Ref: 4204].

2. CREDIT TRANSFER

Waihanga Ara Rau WDC Pre-approved Credit Transfer

Waihanga Ara Rau WDC supports the award of the standards identified. The evidence required to achieve the standards is the apprentice's NZQA Record of Learning listing the relevant qualification.

This recognises the transfer of learning from the completed Level 3 qualification into award of standards that will contribute to the level 4 programme.

This recognition cannot occur via exemption, as a qualification cannot exempt standards.

Process:

Providers must confirm the apprentice entering the programme has the NZC in Electrical Theory (Level 3) [Ref: 2387] on their NZQA Record of Learning. Upon confirmation, the provider should award the listed standards.

If a provider considers that the exempts stated are no longer valid or there are exemptions that are missing, they should contact moderation@waihangaararau.nz in the first instance to get approval for changes to the exemptions outlined in this document.

Graduate of:	Can be awarded
<p>NZC in Electrical Theory (Level 3) [Ref: 2387]</p>	<p>750 Demonstrate knowledge of electrical test instruments and take measurements (Level 2) (2 Credits)</p> <p>1204 Demonstrate knowledge of earthing (Level 3) (2 Credits)</p> <p>5932 Demonstrate knowledge of protection of circuits from static electricity and magnetic interference (Level 2) (2 Credits),</p> <p>15848 Demonstrate and apply knowledge of safeguards for use with portable electrical appliances (Level 2) (3 Credits)</p> <p>15852 Isolate and test low-voltage electrical sub-circuits (Level 2) (2 Credits)</p> <p>15855 Demonstrate knowledge of circuit protection (Level 3) (3 Credits)</p> <p>15866 Demonstrate and apply knowledge of and the procedures for the examination of and testing of electrical installations (Level 4) (3 Credits)</p> <p>25070 Explain the properties of conductors, insulators, and semiconductors and their effect on electrical circuits (Level 2) (7 Credits)</p> <p>25071 Demonstrate knowledge of electromotive force (e.m.f.) production (Level 2) (3 Credits)</p> <p>25072 Apply electromagnetic theory to a range of problems (Level 2) (5 Credits)</p> <p>29465 Apply knowledge of electrical safety and safe working practices for electrical workers (Level 3) (6 Credits)</p>

	<p>29466 Demonstrate knowledge of legislation and Standards governing electrical workers (Level 3) (2 Credits)</p> <p>29467 Demonstrate knowledge of the electrical industry ethical work practices (Level 3) (2 Credits)</p> <p>29468 Demonstrate and apply knowledge of safe plant isolation, re-commissioning, and associated electrical testing procedures (Level 3) (5 Credits)</p> <p>29469 Select and install flexible cords and cables (Level 2) (4 Credits)</p> <p>29470 Demonstrate knowledge of electric motor and generator construction and operation (Level 3) (2 Credits)</p> <p>29471 Demonstrate knowledge of electric switchboards and lighting and power circuits (Level 3) (2 Credits)</p> <p>29472 Demonstrate knowledge of electric lighting systems (Level 3) (6 Credits)</p> <p>29473 Demonstrate knowledge of single-phase and three-phase transformers (Level 3) (3 Credits)</p> <p>29474 Demonstrate and apply knowledge of electrical fittings and components and their installation (Level 3) (6 Credits)</p> <p>29475 Demonstrate and apply knowledge of electronics (Level 3) (8 Credits)</p> <p>29476 Demonstrate and apply knowledge of capacitance, inductance, power factor, and power factor correction (Level 3) (7 Credits)</p>
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	<p>29477 Demonstrate knowledge of the New Zealand national electricity grid and associated electrical protection (Level 3) (2 Credits)</p> <p>29478 Demonstrate knowledge of electrical installations in special situations (Level 4) (6 Credits)</p> <p>29479 Draw and explain electrical diagrams (Level 3) (4 Credits)</p> <p>29480 Demonstrate knowledge of electric circuit design, control, and protection (Level 3) (6 Credits)</p> <p>29481 Apply knowledge of lighting installation, testing, repair, and disposal (Level 3) (5 Credits)</p> <p>29482 Demonstrate and apply knowledge of special power supplies (Level 3) (3 Credits)</p> <p>29483 Demonstrate and apply knowledge of single-phase and three-phase rotating machines (Level 3) (4 Credits)</p> <p>29484 Demonstrate knowledge of theory and practice for electrical workers (Level 3) (1 Credits)</p> <p>29557 Apply fundamental techniques for identifying and locating faults in electrical fittings or systems (Level 3) (4 Credits)</p>
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