



National Certificate in Electricity Supply (Electrical) with strands in Electricity Supply Electrician, Electrical Fitter, and Electrical Technician

Optional strands:

Electrician
 Electrical Fitter
 Electrical Technician

level of qualification: 4

credit total: 100 - 102

Purpose and content of the National Certificate

Purpose:

Holders of this national certificate will have a knowledge of electrical theory, concepts, and trade practice, of relevant legislation, codes of practice, and standards, and will have competence in the practical skills required of a fully qualified electrician, amongst other skills and knowledge. It covers the requirements for registration as an electrician under the Electricity Act 1992.

Content:

Compulsory unit standards

core electrical

		level	credit
1206	Demonstrate knowledge of a.c. power and power factor	4	4
2017	Describe and use complex electrical instruments	4	2
5926	Demonstrate knowledge of programmable logic controllers (PLCs)	4	5
15857	Demonstrate knowledge of three-phase transformers	4	3
15862	Demonstrate knowledge of industrial process control	4	3
15864	Demonstrate knowledge of semiconductor power devices	4	4
20961	Demonstrate knowledge of special electrical installations	4	4
21766	Demonstrate knowledge of theory for registration of electricians	4	3

electrical installation and maintenance

1205	Demonstrate knowledge of electrical switchboards	3	3
1710	Demonstrate knowledge of electric lighting	4	3
2021	Plan, install, and commission a power supply on a construction or demolition site	4	2
5931	Select and install electric switchboards	3	4
15866	Demonstrate procedures for examination and testing of electrical installations	4	2
15869	Install electrical equipment in damp situations	4	3



		level	credit
15870	Inspect and test an electrical installation for compliance with AS/NZS 3000:2000	4	3
16410	Plan, install, test, and commission small electrical installations	4	5
16414	Carry out planned electrical maintenance work of electrical equipment	4	6
20962	Demonstrate knowledge of a.c. electric motor control and installation	4	8
electrical standards and statutes			
1702	Demonstrate knowledge of, and apply electrical legislation, codes of practice, and standards	4	8
<u>Electrician strand</u>			
a minimum of 25 credits at level 4 or above from these domains;			
core skills			
distribution networks			
power system maintenance			
power system management			
testing			
<u>Electrical Fitter strand</u>			
maintenance and diagnostics in mechanical engineering			
2406	Dismantle, inspect, assemble and test components	4	6
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
welding			
2672	Weld steel to a general purpose industry standard with the gas metal arc welding process	3	6
<u>Electrical Technician strand</u>			
power system management			
19481	Demonstrate knowledge of electricity supply protection equipment	4	5
testing			
14271	Carry out tests on power transformers	4	6
14272	Carry out maintenance and/or acceptance tests on high voltage circuit breakers	4	6
14273	Carry out tests on instrument transformers	4	5
14280	Carry out acceptance and maintenance tests on single input protection relays	4	4