

Field Engineering and Technology

Revision of *Electrical Engineering* unit standards

Subfield	Domain	ID
Electrical Engineering	Core Electrical	5932, 15844, 15848, 16407, 25071, 25072, 29429, 29445, 29469, 29473, 29476, 29477, 29480
	Electrical Appliance Servicing	29421
	Electrical Installation and Maintenance	2016, 2030, 5931, 10787, 15866, 29419, 29430, 29435, 29438, 29439, 29468, 29470
	Electrical Machines	29444
	Electrical Standards and Statutes	27352
	Electrotechnology	29437

The Skills Organisation has completed the revision of the unit standards listed above.

Date new versions published

March 2017

Planned review date

December 2019

Summary

The unit standards were revised to address some minor errors or omissions found during the development of training and assessment material.

Main changes

- 29 unit standards were revised to correct minor errors or omissions.
- The title of unit standard 29421 was amended to better align with industry terminology.

Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Engineering and Technology > Electrical Engineering > Core Electrical

ID	Title	Level	Credit
5932	Demonstrate knowledge of protection of circuits from static electricity and magnetic interference	2	2
15844	Select and install flexible cords	3	2
15848	Demonstrate and apply knowledge of safeguards for use with portable electrical appliances	2	3
16407	Use and maintain hand and power tools for electrical work	3	3

ID	Title	Level	Credit
25071	Demonstrate knowledge of electromotive force (e.m.f.) production	2	3
25072	Apply electromagnetic theory to a range of problems	2	5
29429	Demonstrate and apply knowledge of safe practices in an electrical workplace	4	2
29445	Demonstrate and apply knowledge of single-phase and three-phase transformers	4	4
29469	Select and install flexible cords and cables	2	4
29473	Demonstrate knowledge of single-phase and three-phase transformers	3	3
29476	Demonstrate and apply knowledge of capacitance, inductance, power factor, and power factor correction	3	7
29477	Demonstrate knowledge of the New Zealand national electricity grid and associated electrical protection	3	2
29480	Demonstrate knowledge of electric circuit design, control, and protection	3	6

Engineering and Technology > Electrical Engineering > Electrical Appliance Servicing

ID	Title	Level	Credit
29421	Inspect, test, fault-find, and repair fixed-wired electrical appliances, portable electrical appliances, and tools Inspect, test, fault-find, and repair fixed-wired electrical appliances and portable appliances	3	3

Engineering and Technology > Electrical Engineering > Electrical Installation and Maintenance

ID	Title	Level	Credit
2016	Install earthing systems for multiple earthed neutral installations	3	3
2030	Schedule and manage preventative maintenance for industrial electrical equipment	5	6
5931	Select and install domestic or commercial electric switchboards	4	3
10787	Install and test transducers	4	2
15866	Demonstrate and apply knowledge of and the procedures for the examination of and testing of electrical installations	4	3
29419	Prepare for, install, test, and commission new electrical installations	4	10
29430	Select and install industrial electric switchboards	4	3
29435	Install computer networking infrastructure systems	4	4
29438	Install, commission, and maintain a power quality protection system	4	4
29439	Schedule and manage preventative maintenance for domestic or commercial electrical equipment	4	5
29468	Demonstrate and apply knowledge of safe plant isolation, re-commissioning, and associated electrical testing procedures	3	5

ID	Title	Level	Credit
29470	Demonstrate knowledge of electric motor and generator construction and operation	3	2

Engineering and Technology > Electrical Engineering > Electrical Machines

ID	Title	Level	Credit
29444	Demonstrate and apply knowledge of a.c. electric motor control and installation	4	5

Engineering and Technology > Electrical Engineering > Electrical Standards and Statutes

ID	Title	Level	Credit
27352	Demonstrate knowledge of supervision of trainees undertaking prescribed electrical work	4	2

Engineering and Technology > Electrical Engineering > Electrotechnology

ID	Title	Level	Credit
29437	Analyse building and plant energy efficiency	4	3