



National Certificate in Electricity Supply (Electrical Services Technician)

level of qualification: 4

credit total: 109

Purpose and content of the National Certificate

Purpose:

This National Certificate caters for trainees within this industry whose primary role is non-electrical based and who are required to carry out replacement of electrical components as part of their day-to-day work. Holders of the qualification are able to replace fixed wire appliances, including stoves and heaters, light fittings, switches, residual current devices, electric motors, and flexible leads - they may apply to the Electrical Workers Registration Board for electrical registration as an Electrical Service Technician

Content:

Compulsory unit standards

core electrical

		level	credit
750	Demonstrate knowledge of electrical test instruments and take measurements	2	2
1174	Disconnect and reconnect fixed wired electrical appliances or equipment	3	4
15848	Demonstrate knowledge of safeguards for use with portable electrical appliances	2	2
15849	Perform manual soldering and de-soldering procedures for electrical work	2	2
15851	Demonstrate knowledge of electrical safe working practices	2	2
15852	Demonstrate knowledge of electrical testing to ensure safety	2	3
15856	Demonstrate knowledge of the electricity network and the multiple earthed neutral system of supply	3	2
25070	Explain the properties of conductors, insulators, and semiconductors and their effect on electrical circuits	2	7
25071	Demonstrate knowledge of electromotive force (e.m.f.) production	2	3
25072	Demonstrate knowledge of electromagnetism theory	2	5

electrical appliance servicing

18082	Replace and test motors in electrical appliances	4	4
18086	Draw and interpret diagrams of electrical appliances	3	4
18088	Demonstrate systematic fault finding techniques in electrical appliance servicing	3	3



		level	credit
electrical installation and maintenance			
15855	Demonstrate knowledge of circuit protection	3	3
16412	Fault-find, repair, and re-commission electric lighting	3	4
20962	Demonstrate knowledge of a.c. electric motor control and installation	4	8
electrical service technician			
17798	Demonstrate knowledge of legislation and standards for electrical service technicians – single phase	3	2
17800	Demonstrate knowledge of electrical control devices and simple electrical circuits	3	3
17802	Replace fuses and plug-in miniature circuit breakers	3	1
17803	Select and connect flexible cords in single phase plug-in and fixed wired applications	3	2
17804	Test single phase electrical appliances	3	2
17806	Demonstrate knowledge of protection from the harmful effects of electricity	3	2
17807	Demonstrate knowledge of legislation and standards for electrical service technicians – three-phase	4	4
17808	Isolate electrical appliances from the supply	3	1
17809	Demonstrate knowledge of single and three-phase motors for electrical service technicians	4	5
17810	Connect single and three-phase electrical appliances and fittings	3	3
17811	Test single and three-phase electrical appliances	3	3
18090	Demonstrate knowledge of alternating current (a.c) theory for electrical service technicians	4	5
18091	Demonstrate knowledge of three-phase theory for electrical service technicians	4	3
core skills			
19950	Demonstrate knowledge of electrical testing and use test instruments in the electricity supply industry	3	3
distribution networks			
20417	Replace or repair single phase electrical components	4	6
20418	Replace or repair three-phase electrical components	4	6