

Installation and Maintenance Electrician Apprenticeship Standard

Ofsted Outstanding Provider

Course Level: Level 3 | **Campus: Newcastle** | **Subject Type: Construction & Engineering**

Course Overview:

This apprenticeship focuses on developing electrical installation and maintenance skills. Apprentices learn about wiring regulations, electrical systems installation and fault finding, preparing them for roles as electricians in construction or maintenance settings.

What's Covered:

Electricians install, maintain and repair electrical systems in industrial, commercial and domestic environments. Electricians might work in both indoor and outdoor settings. Electrical equipment and systems may include switchboards, motors, cables, fuses, thermal relays, fault current protection switches, heating, lighting, air conditioning and metering equipment as well as crime and fire alarm systems and renewable energy technologies. They are able to work on their own proficiently and work without immediate supervision in the most efficient and economical manner. They may contribute to the design of electrical systems. They are able to set out jobs from drawings and specifications and requisition the necessary installation materials. Electrical safety is an important area of Electricians' work. On completion of their work the electrical systems must be safe to use. They must adhere to safe working practices without endangering themselves or others.

Installation Electricians work on the installation, testing, commissioning and maintenance of low voltage (less than 1000v) electrical and electronic devices and appliances.

Maintenance Electricians work on the maintenance of electrical and electronic installations including automated production systems. Duties include the supervision of the equipment, its maintenance and necessary repairs.

Training:

Electricians will use engineering knowledge and understanding to apply their technical and practical skills. They will contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services. Electricians must:

- Understand and apply the principles, practices and legislation for the termination and connection of conductors, cables and cords in electrical systems
- Understand and apply the practices and procedures for the preparation and installation of wiring systems and electrotechnical equipment in buildings, structures and the environment
- Understand and apply the principles, practices and legislation for the inspection, testing, commissioning and certification of electrotechnical systems and equipment in buildings, structures and the environment
- Understand and apply the principles, practices and legislation for diagnosing and correcting electrical faults in electrotechnical systems and equipment in buildings, structures and the environment
- Understand and apply the electrical principles associated with the design, building, installation and maintenance of electrical equipment and systems
- Oversee and organise the work environment.

1 of 13

DfE Expert Training Providers

Results 13%

above national average

In addition, Installation Electricians must:

- Understand and apply the principles of planning and selection for the installation of electrotechnical equipment and systems in buildings, structures and the environment.

Maintenance Electricians must:

- Understand and apply the practices and procedures for planning and preparing to maintain electrotechnical systems and equipment.

In all of these activities, Electricians must understand and apply health and safety and environmental regulations, guidance notes and relevant codes of practice; and the requirements of the current edition of the Wiring Regulations.

Candidates will be required to achieve the Level 3 Electrotechnical Qualification, (Installation) or (Maintenance).

Electricians will be expected to cover the following behaviours:

- Work reliably and effectively without close supervision
- Accept responsibility for the work of themselves and others
- Accept allocate and supervise technical and other tasks
- Use oral, written and electronic methods for the communication of technical and other information
- Work effectively with colleagues, other trades, clients, suppliers and the public
- Undertake work in a way that contributes to sustainable development
- Maintain and enhance competence in own area
- Exercise responsibilities in an ethical manner.

Entry Requirements:

GCSE Grade 4 Maths and English or equivalent will be required.

Assessment Information:

Your progress is monitored and assessments are arranged throughout the course and are usually done on-the-job and through day release.
Assessment has three aspects which include observation of your actual performance and your knowledge and understanding you display in response to written and/ or spoken questions, and a portfolio of support material which you will build up containing assignments, case studies and testimony evidence through the e-portfolio.
There is also and end assessment, which is the AM2 test. This assessment is carried out externally to the College.
By the end of the apprenticeship the candidate will have satisfied the requirements for registration as Eng Tech by the Engineering Council.

Fees and Financial Support:

While you are on an apprenticeship your employer pays you a salary and supports you whilst you undertake your training.

Progression:

If you successfully achieve all parts of the apprenticeship, your assessor will discuss your next steps to take. Dependent on your roles and responsibilities, this may be the next level of the subject you have been studying already or a different pathway.

What else do I need to know?

On an apprenticeship programme you usually will work for a minimum of 30 hours a week for the employer and then have one day a week at college or designated time in the workplace.
Some job roles will require a DBS before starting, you will be advised at interview stage if this is required.
Whilst you are on an apprenticeship your employer pays you a salary, this includes all off the job training.

How do I find out more?

Telephone: 01782 254287 (Newcastle office) or 01785 275660 (Stafford office)

Email: apprenticeships@nscg.ac.uk