

INSTALLATION ELECTRICIAN / MAINTENANCE ELECTRICIAN ST0152 STANDARD

Duration: 42 months **Max Funding:** £18000

Entry requirements:

Individual employers may identify relevant entry requirements in terms of previous qualifications, trainability tests, or other criteria. Most candidates will have English and mathematics at level 2 on entry. However, because of the technical nature of the course, Lincoln College are only normally accepting candidates with a minimum grade 4 or C in English and Maths. Candidates would normally be expected to demonstrate some practical aptitude and be able to demonstrate general analytical skills, a capacity for and the potential to research, analyse and solve problems.

How we deliver

Normally one day per week at Lincoln College for the duration, which contributes towards the mandated 20% Off-The-Job Training required. This may include workshop practice, theory sessions, work based assignments, industry visits and onsite assessment facilitated by our dedicated electrical team.

Standard Overview

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.

END POINT ASSESSMENT



On completion of the on-programme learning, the apprentice will undertake an End Point Assessment (AM2S) to confirm competency of knowledge, skills and behaviours embedded within this standard. This can only take place when all three parties; employer, provider and apprentice, confirm candidate readiness at a gateway meeting. The end point assessment is independent and can be only carried out at a designated assessment centre. The AM2S is a robust, timed (16.5 hours typically over 2 and a half days) practical and theory (40 multiple-choice questions) assessment in sections, requiring candidates to perform a set of common tasks and procedures that a full scope electrical operative might face when working in commercial or industrial premises as well as dwellings. It assesses candidates on installation, inspection and testing and fault-finding; their work must comply with BS 7671, be in line with relevant health and safety legislation and conform to current industry practices and procedures.

Qualifications

Candidates will be required to achieve the Level 3 Electrotechnical Qualification, (Installation) or (Maintenance). Apprentices without level 2 English and mathematics will need to achieve this level prior to completion of their apprenticeship. At the end of the apprenticeship the candidate will have satisfied the requirements for registration as EngTech by the Engineering Council

Knowledge and Skills

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.

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.



BEHAVIOURS

Electricians will be expected to:

- 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.

EPA (AM2S) Costs

The initial AM2S cost is £776 and is incorporated in the overall negotiated price. Any failures will require re-sitting of elements failed and payment of a re-sit fee which is not incorporated into the price and will be calculated in relation to the scope of the failure and vary between £170 and £400.