



Apprentice Electrotechnical, Maintenance Level 3 – Job Description

(Job Code and Level: MFGMAI000.0)

Definition:

Maintenance is the use of different systems and processes to ensure that facilities, layout and machinery used to produce new and existing materials and goods run to their maximum efficiency and output. This includes total preventative maintenance, managing breakdowns and repair. An apprenticeship programme will result in a time served qualification.

Overall Purpose of the Role:

Undertake a programme of training to gain full working knowledge in all aspects of Maintenance including learning to diagnose faults leading to repair, as well as maintaining facilities process equipment. To assist and support with planned and reactive maintenance as well as liaise with internal stakeholders and subcontractors.

Duration:

Typically the duration of this apprenticeship is 42 to 48 months. This may reduce if an apprentice is part-qualified or has relevant experience on entry.

Key Responsibilities:

General and Task Management

- Electricians install, maintain and repair electrical systems in industrial, commercial 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 renewable energy technologies
- Learn to work on own proficiently and without immediate supervision in the most efficient and economical manner
- Contribute to the design of electrical systems

- Learn to set out jobs from drawings and specifications and requisition the necessary installation materials
- Electrical safety is an important area to understand and on completion of work the electrical systems must be safe to use
- Must adhere to safe working practices without endangering self 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. This includes supervision of the equipment, its maintenance and necessary repairs

Self Management

- 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

Skills and Attributes:

Electricians will use engineering knowledge and understanding to apply their technical and practical skills. They 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

Installation Electricians also 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 also must:

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

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

Qualifications and Experience Levels:

- Individual employers will set the selection criteria for their Apprenticeships. In order to optimise success, candidates will typically possess 4 GCSEs at Grade C or equivalent, including Mathematics, English and a Science/Technical GCSE. Apprentices without level 2 Maths and English need to achieve this prior to completion of their Apprenticeship
- Advanced Apprenticeships will generally be structured over 4 years, combining training with a local College and work based learning and experience
- Candidates will be required to achieve the NVQ Level 3 Electrotechnical Qualification (Installation) or (Maintenance)
- By the end of the apprenticeship the candidate will have satisfied the requirements for registration as Eng Tech by the Engineering Council.

Further Information:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/448907/ELECTROTECHNICAL_Installation_Electrician__Maintenance_Electrician.pdf

Example roles this job description may cover:

- Junior Electrician
- Trainee Electrical Maintenance Technician