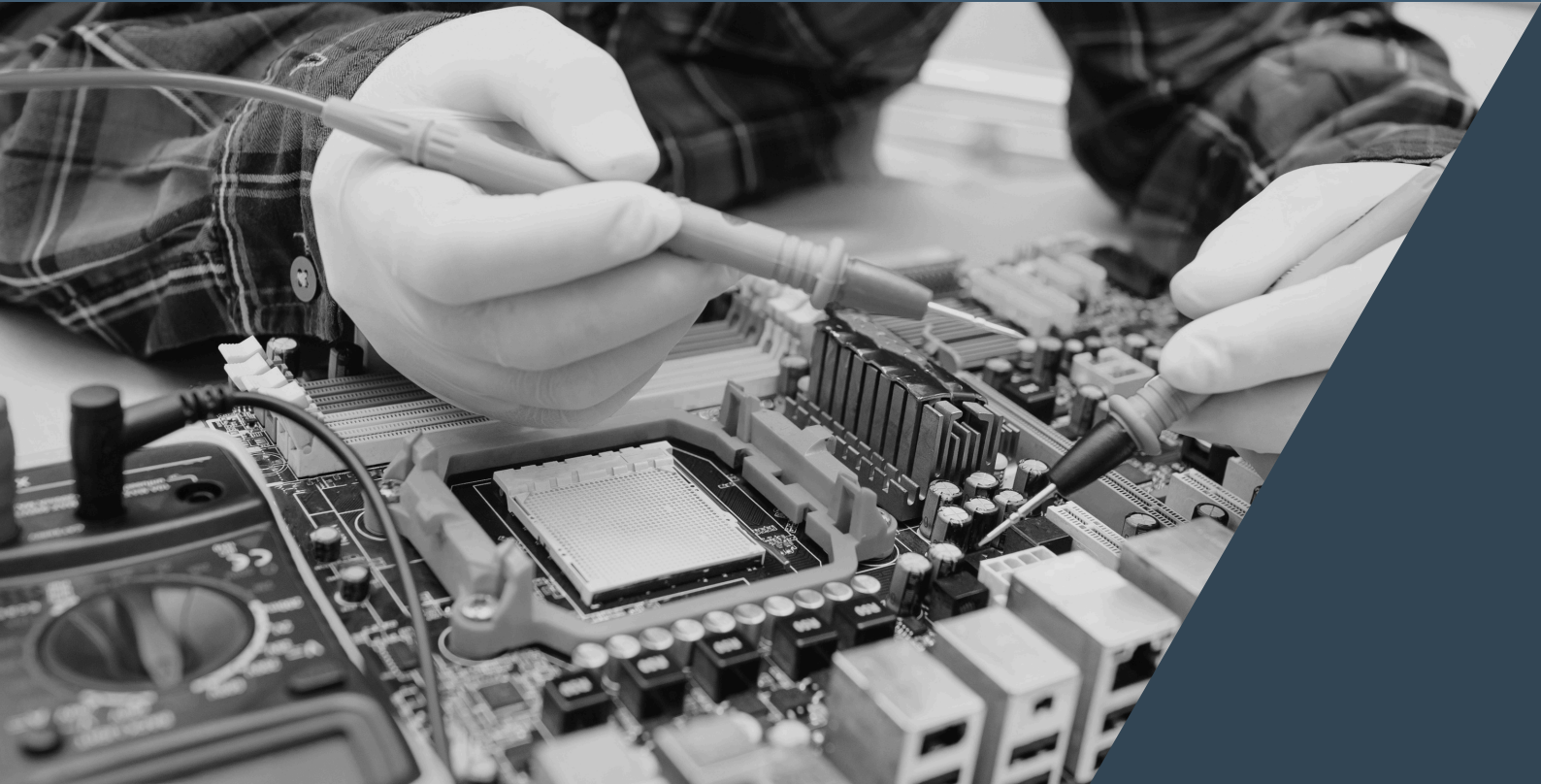




QUALITRAIN
ENGINEERING ACADEMY



Electrical Fitting and Assembly

Apprenticeship Unit (AU0005)

Minimum learning hours: 70

Typical duration: 2 weeks (block release) to 3 months (day release)

The **Electrical Fitting and Assembly Apprenticeship Unit** is a targeted, high-value training programme designed to build essential **electrical knowledge and practical capability** in existing engineering staff.

Drawing directly from recognised apprenticeship standards, this unit equips learners with the skills needed to carry out electrical fitting and assembly work **safely, accurately, and to industry expectations**—all within a flexible, short-duration format that works around your business.

What technical knowledge will learners gain?

This unit develops a strong understanding of the principles, standards, and controls that underpin safe and effective electrical fitting and assembly.

Learners will build knowledge of:

- **Electrical health and safety legislation and regulations**, including safe systems of work and hazard control
- **Electrical specifications, schematics, and technical documentation**, understanding symbols, layouts, wiring diagrams, and installation requirements
- **Electrical components, cables, and connection methods**, including their purpose, characteristics, and correct application
- **Testing methods and procedures**, including why testing is required during and after assembly
- **Common electrical faults and failure modes**, enabling systematic diagnosis and informed corrective action

This knowledge ensures learners understand expectations, work compliantly, and contribute to safer, more reliable electrical assemblies.

What technical knowledge will learners gain?

The unit focuses on practical, job-ready competence, enabling learners to apply what they know immediately in real workplace settings.

Learners will develop the skills to:

- Apply **safe working practices** consistently during all electrical fitting and assembly activities
- **Interpret electrical drawings, specifications, and instructions** to complete work accurately
- **Plan and organise electrical tasks**, managing priorities, time, and resources effectively
- **Select and use appropriate tools and equipment** safely and correctly for electrical work
- **Wire, route, and terminate a range of electrical cable types** to defined standards
- **Carry out electrical fitting and assembly activities** in line with specifications and quality requirements
- **Conduct electrical testing during and after assembly** to confirm safety and functionality
- **Identify and diagnose faults** in electrical assemblies and take appropriate action

These skills directly support improved build quality, reduced downtime, and compliance with electrical safety requirements.

Who is this unit for?

This apprenticeship unit is designed for:

- Employed engineering operatives and technicians
- Learners aged 19 and over
- Individuals with some existing engineering experience who need to strengthen electrical fitting and assembly capability

It is ideal for employers developing multi-skilled teams, supporting progression into electrical roles, or standardising electrical assembly standards across the workforce.



Why employers choose this unit

- ✓ Rapid upskilling in essential electrical assembly skills relevant to your processes
- ✓ Improved safety, testing, and fault-finding capability
- ✓ Flexible delivery with minimal disruption to operations
- ✓ Skills aligned to recognised national standards



Why learners value this unit

- ✓ Practical electrical skills they can apply immediately
- ✓ Greater confidence reading drawings and wiring systems
- ✓ Improved ability to test and fault-find electrical assemblies
- ✓ Recognised training that supports career progression





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