



Engineering Technician - Level 3

Apprenticeship

Typically the work would cover a broad range of activities including installation, testing, fault and the ongoing planned maintenance of complex automated equipment. This standard combines a Level 2 Foundation qualification followed by Level 3.

Core Knowledge:

- Understand mathematical techniques, formulas and calculations in a mechatronics maintenance environment and the type of equipment being maintained.
- Understand mechanical, electrical, electronic, fluid power and process control principles in a mechatronics maintenance environment.
- Understand how equipment being maintained functions and operating parameters in individual components and how they interact.
- Understand fault diagnostic methods, techniques and equipment used when maintaining equipment and systems.
- Understand condition monitoring methods and equipment used and understand how the information gained supports the planning of maintenance activities.
- Understand how to minimise machinery downtime by implementing planned preventative maintenance programmes.

WHO IS IT FOR?

You will need to be able to:

- Read and interpret relevant data and documentation used to maintain components, equipment and systems
- Carry out condition monitoring of plant and equipment
- Carry out planned maintenance activities on plant and equipment
- Carry out complex fault diagnosis and repair activities on high-technology engineered systems such as maintaining mechanical equipment
- Maintaining fluid and pneumatic power equipment
- Maintaining electrical and electronic equipment, and maintaining process control equipment
- Carry out confirmation testing and subsequent smooth handover of equipment and plant support the installation, testing and commissioning of equipment (where applicable).

Duration: 36-42 Months

Location: Workplace and College

Sector: Engineering



PROGRESSION

Engineering Technicians cover many roles including Electrical Technician, Mechanical Technicians, Control and Instrumentation Technicians, Electromechanical Technicians and Plant Operations Technicians. They will maintain the safety, integrity and effective operation of plant and equipment in one or more of the following Industries that are part of or have activities that are part of the broader national infrastructure Engineering Sector. To support the business and operational requirements of modern integrated engineered production plants and services, Electrical Systems and Process Control Technicians and Electromechanical Technicians will need to apply a range of conventional skills and knowledge to undertake engineering activities on a selection of electromechanical and process control plant, systems and equipment. Upon achieving all your qualifications and your EPA, this standard will meet the professional standards of the Engineering Council for registration as an Engineering Technician (Eng Tech) by an appropriate Professional Engineering Institution. Possible progressing could be Level 4 or higher supervisory roles in the workplace.

TRAINING

During the apprenticeship, you will cover all elements below:

- Level 2 Diploma in Advanced Manufacturing Engineering (foundation competence)
- Level 3 Diploma in Advanced Manufacturing Engineering (development competence)
- Level 3 Diploma or Extended Diploma in Advanced Manufacturing Engineering (development knowledge)
- Level 2 Maths and English Functional Skills (if needed)
- Online or class-based lessons for knowledge-based qualifications
- Practical sessions in the workshop for engineering, electronics and electrical units
- Observations and work-based assessments to measure the level understanding and knowledge
- Regular progress reviews to support and set SMART targets
- Ongoing support from tutor/assessor throughout the apprenticeship

END POINT ASSESSMENT

EPA is 4 months and includes Knowledge assessment (20%), Practical Observation (40%), CPD and Ethics Modules (required), and a Technical Interview (40%).

NEXT STEPS

Upon achieving all your qualifications and your EPA, this standard will meet the professional standards of the Engineering Council for registration as Engineering Technician (Eng Tech) by an appropriate Professional Engineering Institution. Possible progressing could be Level 4 or higher supervisory roles in the workplace

KEY EMPLOYERS

- BAE Systems
- Airbus Group
- The Institution of Engineering and Technology
- British Airways
- Babcock
- CBRE
- Vertiv

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- EMCOR
- Siemens

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