



# MAINTENANCE & OPERATIONS ENGINEERING TECHNICIAN

## Level 3, Apprenticeship Standard

### ELIGIBILITY/ENTRY REQUIREMENTS

Typically 5 GCSEs at grade 5 or higher including maths, English and science, or equivalent and/or relevant experience.

Maintenance Technicians 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: the electricity generating environment, which may use a range of different fuels including coal, gas, nuclear, wind and other renewable sources; telecommunications power plants; oil and gas refining; nuclear waste reprocessing; processing and production of chemicals; pharmaceuticals; human and animal food; cosmetics; petrochemicals; sewerage and the exploration and exploitation of oil and gas.

Electrical/Mechanical/Control and Instrumentation/Wind Turbine Technicians will work on various types of plant and equipment commonly found throughout the Engineering Industry sectors and the Technicians can be expected to migrate through these sectors during the course of their careers. Dependent upon the sector that they are employed in there may be subtle differences in terms of the composition and application of the plant and equipment. However, the fundamental principles of operation will be the same regardless of the engineering sector. To support the business and operational requirements of modern integrated engineered production plant 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.

These Technicians will undertake installation, testing, servicing, removal, replacement, maintenance and repair of a range of equipment, sometimes complex, as part of planned preventative and reactive maintenance programmes. They may also undertake decommissioning activities when plant is being removed from service. Plant Operation Technicians will undertake the safe and efficient operation of complex integrated energy conversion and production plant and systems. These activities could include plant commissioning, isolation and testing, plant preparation, plant start-up and shut down, monitoring and controlling plant and dealing with critical operational problems.

### APPRENTICESHIP REQUIREMENTS

Apprentices should have a range of skills and attributes including:

- Motivation to succeed within industry
- An awareness of the demands of the Apprenticeship
- Willingness to comply with employer/training provider terms and conditions of employment
- Have the ability to apply learning in the workplace
- Willingness to work with due regard to Health and Safety of self and others
- Effective communication with a range of people.



## TYPICAL JOB ROLES IN THIS AREA INCLUDE:

**Electrical Technicians, Mechanical Technicians, Control & Instrumentation Technicians, Wind Turbine Technicians, Electrical System and Process Control Technicians, Electromechanical Technicians and Plant Operations Technicians.**

KEY FACTS:	
<b>Delivery location</b>	Stretford Campus.
<b>Typical duration</b>	36-48 months.
<b>Study mode/frequency</b>	Day-release.
<b>Apprenticeship Standard</b>	Registration as Engineering Technician (Eng Tech) by an appropriate Professional Engineering Institution.
<b>Knowledge and skills</b>	<p>A Technician will understand:</p> <ul style="list-style-type: none"> <li>• First principles relating to the operation and maintenance of appropriate plant and equipment</li> <li>• Relevant industry health and safety standards, regulations, and environmental and regulatory requirements</li> <li>• Maintenance and operational practices, processes and procedures covering a range of plant and equipment</li> <li>• The relevant engineering theories and principles relative to their occupation</li> </ul>
<b>Competency/skills or behaviours</b>	<p>A Technician will apply their knowledge of plant and systems to safely perform maintenance and operational activities with minimum supervision. This will require them to:</p> <ul style="list-style-type: none"> <li>• Comply with industry health, safety and environmental working practices and regulations</li> <li>• Locate, and rectify faults on plant and equipment</li> <li>• Communicate with and provide information to stakeholders in line with personal role and responsibilities</li> <li>• Read, understand and interpret information and work in compliance with technical specifications and supporting documentation</li> <li>• Prepare work areas to undertake work related activities and reinstate those areas after the completion of the work related activities</li> <li>• Inspect and maintain appropriate plant and equipment to meet operational requirements</li> <li>• Assess and test the performance and condition of plant and equipment communicate, handover and confirm that the appropriate engineering process has been completed to specification</li> </ul>
<b>Functional Skills</b>	Apprentices must achieve level 2 English and Mathematics prior to taking the end-point assessment for the apprenticeship if they haven't achieved them on entry.
<b>Assessment</b>	Learners will demonstrate their knowledge and behaviours undertaken throughout their apprenticeship via an End Point Assessment and will include a Knowledge Assessment Test, Technical Interview and a Practical Observation. Grading will be Pass, Merit, Distinction.

For further information contact **START** on **0161 886 7461** or email **start@tcg.ac.uk**  
Stockport, Trafford, Apprenticeship, Recruitment Team



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