



**MAINTENANCE & OPERATIONS ENGINEERING TECHNICIAN Apprenticeship**

**EMPLOYER FACTSHEET  
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Maintaining the safety, integrity and effective operation of plant and equipment in industries that are part of the national infrastructure engineering sector, such as electricity generating, oil and gas refining and pharmaceuticals.

**Key Information**

Level	3
Duration	Typically 36-42 months
Entry requirements	- 16 years or over. - Please contact our Apprenticeship team for further entry requirements.
Delivery	A minimum of 30 hours of on the job training at work place, 2 days per week including a day to study at our Uxbridge campus
Typical job titles	Mechanical fitter, Electrical fitter, Electronic fitter, Instrumentation fitter, Pipe fitter, Controls and systems fitter
Qualifications	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.
Link to Professional Registration	This standard will meet the professional standards of the Engineering Council for registration as Engineering Technician (Eng Tech) by an appropriate Professional Engineering Institution.

**Choose a Trusted Provider**

 <p>We are a top provider in London with consistently high success rates</p>	 <p>We are the largest college group providers of apprenticeships in west London</p>
 <p>We work with major companies including British Airways, Brunel University London &amp; Menzies etc.</p>	 <p>Most of our apprentices secure employment at the end of their apprenticeship</p>
<p>Discounted travel with an Apprentice Oyster card</p>	<p>Discounts on shopping with an NUS Apprentice Extra Card</p>

**Employers involved in creating this standard:**

Alstom, AMEC Foster Wheeler, Beck & Pollitzer Engineering Limited, Boulting, Cavendish Nuclear, Centrica Energy, Cofley Fabrication, Cordell Group, Doosan, E.ON, EDF Energy, Engenda Group, ESB, Horizon Nuclear Power, The Institution of Engineering and Technology, Jacobs, Magnox, PEME, RWE, Shepley Engineers Limited, Specialised Management Services, Springfields Fuels Limited, Scottish and Southern Energy, Technica, Veolia, Vogal Group, Wisbeach Electrical Ltd

-  01895 853622/ 0208 909 6328
-  apprenticeships@hruc.ac.uk
-  www.hruc.ac.uk/apprenticeships
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## Occupational Profile

Maintenance & Operations Engineering Technicians covers 7 roles: Electrical Technicians; Mechanical Technicians; Control & Instrumentation Technicians; Wind Turbine Technicians Electrical System and Process Control 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: 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.

They will be responsible for the quality of their own work, possibly others' and ensuring the work is completed safely, meets stakeholder quality, time and budget requirements, whilst maintaining the efficient running of plant and equipment.

## Sample Course Content

### Core Knowledge

A Technician will understand:

- first principles relating to the operation and maintenance of appropriate plant and equipment
- relevant industry health and safety standards, regulations, and environmental and regulatory requirements

### Core Skills

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:

- comply with industry health, safety and environmental working practices and regulations
- locate, and rectify faults on plant and equipment

### Core Behaviours

- Health & Safety – follows health & safety policies and procedures and be prepared to challenge unsafe behaviour using appropriate techniques to ensure the protection of people and property when working alone and/or with appropriate supervision
- Quality focused – ensures that work achieves quality standard both occupationally and personally
- Working with others – works well with people from different disciplines, backgrounds and expertise to accomplish an activity safely and on time

### Specialist roles

In addition an Electrical Technician will:

- position, assemble, install and dismantle electrical plant and equipment, which will include motors, switchgear, cables & conductors, to agreed specifications

## Specialist roles

### In addition a Mechanical Technician will:

- position, assemble, install and dismantle mechanical plant and equipment which will include pumps, valves, gearboxes, pipework, to agreed specifications

### In addition a Control & Instrumentation Technician will:

- position, assemble, install and dismantle plant and equipment which will include instrumentation and control of temperature, pressure and flow systems to agreed specifications

### In addition a Wind Turbine Technician will be able to:

- install, assemble and dismantle wind turbine plant and equipment, which will include pitch systems, yaw systems, switchgear, control systems to agreed specifications

### In addition an Electrical System and Process Control Technician will:

- position, assemble, install and dismantle integrated electrical apparatus, systems and process control equipment

### In addition an Electromechanical Technician will:

- position, assemble, install and dismantle integrated electromechanical power and control systems

### In addition a Plant Operations Technician will need to understand:

- complex thermal, chemical, mechanical and electrical energy conversion processes

### In addition, a Plant Operations Technician will be able to:

- safely and efficiently carry out routine and non-routine operating procedures on plant and equipment

## Frequently Asked Questions

### What is new apprenticeship standard?

Apprenticeships in England are changing. Because of government reforms, a new style of apprenticeships has been designed to meet the needs of employers, learners and providers.

### How will I be assessed?

You will be assessed continually in knowledge, skills and behaviour areas at work. Towards the end of the apprenticeship, employers and providers will 'sign-off' the apprentice as ready for the end-point assessment (EPA).

Signing-off an apprentice indicates the employer and providers believe their knowledge, skills and behaviours are the level required to gain an apprenticeship. This sign-off is called the 'gateway'.

An end-point assessment (EPA) is a collection of assessments that offers confirmation of knowledge, skills and behaviours for a particular role. The EPA must be achieved before an apprenticeship certificate can be issued. The assessment organisation and the assessor must be independent of, and separate from the training provided by the provider and employer.

### Do I already need to have a job to start an apprenticeship?

You should be working a minimum of 30 hours per week in a job. If you are unemployed, view our vacancies to apply for a job:

[www.hruc.ac.uk/apprenticeships](http://www.hruc.ac.uk/apprenticeships)

### Can I start an apprenticeship after Year 11?

Yes, you can! Young people in England must stay in education or training until they turn 18. If you're looking for a different option after Year 11, an apprenticeship could be the answer for you!

### How much does an apprenticeship cost?

There is no cost for you to do an apprenticeship if you are 16 years old or over and you will be paid a wage.

View our vacancies to apply

[www.hruc.ac.uk/apprenticeships](http://www.hruc.ac.uk/apprenticeships)



Already working? Upskill!

Turn your job into an apprenticeship. Call us on **01895 853622 / 0208 909 6328** to get you started.