

Maintenance & Operations Engineering Technician Advanced Apprenticeship Standard



Course Level: Level 3

Campus: Both

Subject Type: Construction & Engineering

Course Overview:

This apprenticeship focuses on developing technical skills in maintenance and operations engineering. Apprentices learn about equipment maintenance, troubleshooting and process improvement, preparing them for roles as engineering technicians in manufacturing or industrial settings.

What's Covered:

Maintenance & Operations Engineering Technicians covers seven roles:

- Electrical Technicians
- Mechanical Technicians
- Control & Instrumentation Technicians
- Wind Turbine Technicians
- Electrical System and Process Control Technicians
- Electromechanical Technicians
- 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

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13%

above national
average

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.

The topics you will cover whilst training include:

- BTEC - Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge)
- EAL Level 2 Diploma in Advanced Manufacturing Engineering (Foundation Competence)

Entry Requirements:

4 GCSE's grade 4 or above in Maths, English, Science and one other. If you do not hold relevant Maths and English qualifications, you will be expected to undertake functional skills at level 2 in these subjects.

Assessment Information:

Your progress is continually monitored throughout the course. Assessments are arranged when necessary and these take place on-the-job.

Assessments will include: observation of your performance; responses to written and/or spoken questions to show your knowledge and understanding; e-portfolio of supporting evidence containing testimonies, reflective accounts, assignments, work products such as activity planning sheets, completed risk assessments, continual professional development evidence. Apprenticeship duration 36 - 42 months.

Once you have completed your programme, met all of the pre-requisites for the EPA, including English and maths requirements, and your employer is satisfied that you are consistently working at or above the level set out in the occupational standard, you will be put through for your End Point Assessment which will take place within a 6 month period.

The EPA consists of 3 assessment methods:

- Knowledge test
- Practical observation
- Technical interview underpinned by an evidence portfolio

Fees and Financial Support:

While you are on an apprenticeship your employer pays you a salary and supports you whilst you undertake your training.

Progression:

If you successfully achieve all parts of the apprenticeship, your assessor will discuss with you and your employer the next steps to take. Dependent on your roles and responsibilities, this may be the next level of the subject you have been studying already or a different pathway.

What else do I need to know?

On an apprenticeship programme you usually will work for a minimum of 30 hours a week for the employer and then have one day a week at college or designated time in the workplace. Some job roles will require a DBS before starting, you will be advised at interview stage if this is required.

Whilst you are on an apprenticeship your employer pays you a salary, this includes all off the job training as well.

How do I find out more?

Telephone: 01782 254287 (Newcastle office) or 01785 275660 (Stafford office)

Email: apprenticeships@nscg.ac.uk