

Engineering Operative Intermediate Apprenticeship Standard

Ofsted Outstanding Provider

Course Level: Level 2 | **Campus: Newcastle** | **Subject Type: Construction & Engineering**

Course Overview:

Apprentices learn basic engineering skills, including operating machinery, reading technical drawings, and following health and safety procedures, preparing them for entry-level roles in engineering companies.

What's Covered:

The topics you will cover whilst training include:

- EAL Level 2 Diploma in Engineering Operations (Skills)
- EAL Level 2 Certificate in Engineering Operations (knowledge)

Typical job roles include:

Engineering Operatives will have clear reporting lines with anything outside their role and responsibility. They will work individually or as part of a team to carry out a range of engineering operations which could include ensuring machines and equipment used are maintained and serviceable, dealing with breakdowns, restoring components and systems to serviceable condition by repair and replacement; operating a variety of machines (CNC or Conventional); assembling and repairing machine and press tools, dies, jigs, fixtures and other tools; fabrication/installation of a wide variety of other sheet fabrications and equipmentand; fabrication and assembly of metal parts joining techniques; preparing materials and equipment for engineering processes, providing technical support including communications software, test tools, performance, capacity planning, and e-commerce technology as required.

Engineering Operatives must comply with statutory regulations and organisation safety requirements including any environmental compliance procedures and systems; Identify hazards and hazardous situations; Prepare the work area and equipment; Obtain and follow the appropriate job documentation and work instructions; Extract the necessary data and information from specifications and related documentation; Carryout the engineering activities in line with their job role; Carry quality checks as required; working with minimum supervision either individually or as part of a team and will be responsible for their own actions and for the quality and accuracy and timely delivery of the work they undertake.

Specialist job roles

In addition to the core knowledge and skills, all engineering operatives must complete ONE of the following job role options:

Option 1:

Engineering Operatives working within a maintenance role (this role can cover either mechanical, electrical, electronic or fluid power work or a combination of them) will have:

Knowledge of:

- Maintenance planning
- Diagnostic and fault finding techniques
- Specific safe working practices, maintenance procedures and environmental regulations that need to be observed

Skills:

- Carryout fault location on appropriate equipment using suitable maintenance diagnostic techniques
- Carryout maintenance activities in line with work instructions
- Carryout tests on the maintained equipment in accordance with test schedule/defined test procedures
- Follow appropriate completion activities and restore equipment to service by replacing or repairing components

Option 2:
Engineering operatives working within a mechanical manufacturing engineering role will have:

Knowledge of:

- Specific equipment operating parameters
- Mechanical manufacturing techniques
- Specific quality specifications for mechanical manufacturing operations

Skills:

- Plan the mechanical manufacturing operation before they start
- Mount and set the required work holding devices
- Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques
- Carryout quality checks during and after mechanical manufacturing operations

Option 3:
Engineering operatives working within an electrical and electronic engineering role will have:

Knowledge of:

- Cable types and where they should be used
- Electrical and electronic assembly and testing techniques
- Specific safe working practices, isolation procedures and safe reinstating of equipment/system that need to be observed

Skills:

- Wire and terminate different types of cabling e.g. single core, multi core, screened, fire resistant, armoured, etc.
- Assemble and test a range of electrical components e.g. component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.
- Assemble and test a range of electronic components e.g. resistors, capacitors, diodes, transistors, etc.
- Follow appropriate completion activities and restore equipment/system to service after the assembly and testing has been completed

Option 4:
Engineering operatives working within a fabrication role will have:

Knowledge of:

- Specific marking out and preparation techniques
- Different fabrication and joining techniques
- Specific safe working practices, isolation procedures and safe reinstating of equipment/system that need to be observed

Skills:

- Shape the materials using the appropriate methods and techniques
- Join the materials using the appropriate methods and techniques
- Produce components which meet the specification requirements
- Carryout quality checks during and after the fabrication activities

Option 5:
Engineering operatives working within a materials, processing or finishing role will have:

Knowledge of:

- Specific machinery, equipment and tooling required for the materials, processing or finishing operation
- Different materials, processing or finishing techniques

- Specific quality specifications for materials, processing or finishing operations

Skills:

- Plan the materials, processing or finishing operation before they start
- Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the materials, processing or finishing operation
- Carry out the material, processing or finishing operation in line with specific safe working practices and specification requirements
- Carryout quality checks during and after the materials, processing or finishing operation

Option 6:

Engineering operatives working within a technical support role will:

Knowledge of:

- Specific machinery, equipment and tooling required for the technical support operation
- Different technical support techniques
- Specific safe working practices, procedures and quality requirements that need to be observed

Skills:

- Plan the technical support operation before they start
- Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the technical support
- Carry out the technical support operation in line with specific safe working practices and specification requirements
- Carryout quality checks during and after the technical support operation

Entry Requirements:

A minimum expectation of GCSE Grade 2's in English and maths or working towards grade 2

Assessment Information:

Your progress is continually monitored throughout the course. Assessments are arranged when necessary and these take place on-the-job. Apprenticeship duration 12 - 18 months.

Assessments will include:

By observing 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.

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 3 month period.

The EPA consists of 2 assessment methods:

- Practical observation
- Professional discussion underpinned by reflective 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