

# L2 APPRENTICESHIP

## ENGINEERING OPERATIVE

### Overview

Engineering Operatives are predominantly involved in engineering operations which are key to the success of the Manufacturing and Engineering sector allowing employers to grow their business while developing a work force with the relevant skills and knowledge to enhance the sustain the sector.

The role covers a wide range of common and job specific skills sets that can be transferred across the manufacturing engineering industry sectors during their careers. Dependent on the sector that they are employed in there may be subtle differences in terms of composition and application of the job role specific skills and knowledge they will require, however the core skills and knowledge will be the same regardless of the sector/area they work in.

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 equipment and; 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; Carry out 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.

Examples of the occupational roles from across the engineering and manufacturing sector that would be covered within this standard are: Servicing and maintenance operative; Machine setter/operative; Mechanical engineering operative; Fabricator; Engineering fitter; Multi-disciplined engineering operative; Materials, processing and finishing operative, Technical Support operative, founding/casting operative.

### Entry requirements

Grade 2 GCSE (F) or above in English and Maths

### KEY INFORMATION

**Typical Duration:**  
18 Months + 3 months EPA

**Taught Days:**  
One day every week term time only

**Delivery Location:**  
Truro

**Funding value:**  
£6,000

(£300 employer contribution if required)

# Who is the course for?

This is an intermediate level programme for engineering companies requiring staff with reasonable engineering skills that gives them an understanding of multiple workshop-based engineering activities. This is also an apprenticeship for Non-Engineering companies where they require a staff member to have a basic understanding of engineering to undertake maintenance roles.

- Engineering Operatives Working Within a Fabrication Role, Engineering Operatives Working Within a Maintenance Role, Engineering Operatives Working Within a Materials, Processing or Finishing Role, Engineering.
- Operatives Working Within a Mechanical Manufacturing Engineering Role, Engineering Operatives Working Within a Technical Support Role, Engineering Operatives Working Within an Electrical & Electronic Engineering Role.

## Programme content

### Knowledge

- How to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them.
- Relevant statutory, quality, environmental compliance procedures/systems, organisational and health and safety regulations relating to engineering operations.
- Their individual roles and responsibilities within the organisation and the flexibility required to support the achievement of company targets.
- Engineering operational practices, processes and procedures.
- Potential problems that can occur within the engineering operations and how they can be avoided.

### Skills

- Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines.
- Identify and deal appropriately with any risks, hazards, hazardous situations and problems that may occur within the engineering environment within the limits of their responsibility.
- Demonstrate effective communication skills which include oral, written, electronic.
- Complete appropriate documentation accurately, efficiently and legibly using the correct terminology where required.
- Obtain and follow the correct documentation, specifications and work instructions in accordance with time constraints and the roles and responsibilities identified for the engineering activities, extracting the necessary data/information from specification and related documentation.
- Select and use appropriate tools, equipment and materials to carry out the engineering operation.
- Deal appropriately with any problems that may occur within the manufacturing environment within the limits of their responsibility.
- Always work efficiently and effectively maintaining workplace organisation and minimising waste.

### Behaviours

- **Personal responsibility and resilience:**  
Comply with the health and safety guidance and procedures, be disciplined and have a responsible approach to risk, work diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.



- **Work effectively in teams:**  
Integrate with the team, support other people, consider implications of their own → actions on other people and the business whilst working effectively to get the task completed.
- **Effective communication and interpersonal skills:**  
An open and honest communicator, communicates clearly using appropriate methods, listen well to others and have a positive and respectful attitude.
- **Focus on quality and problem solving:**  
Follow instructions and guidance, demonstrate attention to detail, follow a logical approach to problem solving and seek opportunities to improve quality, speed and efficiency.
- **Continuous personal development:**  
Reflect on skills, knowledge and behaviours and seek opportunities to develop, adapt to different situations, environments or technologies and have a positive attitude to feedback and advice.

## Gateway

Practical observation – to assess the apprentice’s application of skills within the apprentice’s place of work or in a suitable environment away from the workplace (e.g. In a centre approved by the EPAO {End Point Assessment Organisation}).

Professional discussion – to holistically assess KSB’s (Knowledge, Skills and Behaviours) across the standard and will be informed by reflective portfolio.

Apprentices without Level 1 (or equivalent) in English and maths must ensure that apprentices achieve Level 1 and take the test for Level 2 prior to taking the end-point assessment.

## End point assessment

### EPA methods

#### Assessment method 1 - Practical skills Observation:

The Practical Observation will be carried out at the apprentice’s place of work or an in-centre practical assessment in a suitable area away from the work place where it is not feasible to use the employer’s premises and will be carried out by an independent assessor, approved by the EPAO.

During the process the apprentice will be expected to demonstrate to the assessor the application of the core knowledge, skills and behaviours of specific job-related knowledge and skills. Apprentices will be observed and will be assessed against both the core and their chosen specific job role option KSBs as identified within the standard. Typically, this will be covered within one task but may be covered over two separate tasks if required.

During the observation the independent assessor may ask between 3 and 6 open questions to assess the related underpinning knowledge. They may ask to follow up questions where clarification is required. Questioning must be completed within the total time allowed for the observation. Questions may be asked both during and upon completion of the observation.

KSBs observed and answers to questions must be documented by the independent assessor. Apprentices must be provided with both written and verbal instructions on the tasks they must complete including timescales.

#### Assessment Method 2 - Professional discussion:

On completion of the professional discussion the apprentice will be awarded a grade of Pass, Distinction or Fail. The purpose of the professional discussion is to enable the apprentice to showcase to the panel how they have carried out the role of an Engineering Operative, integrating the knowledge, skills and behaviours expected and for the review panel to be assured the apprentice has achieved the requirements of the Standard.



To help ensure that the professional discussion is practicable and cost effective, it can be carried out at the employer's site, an assessment centre approved by the EPAO or via video link appropriate, if a video link is used then appropriate measures must be in place to ensure the EPAO is satisfied that the responses given are those of the candidate e.g. use of a 360 degree camera to allow the assessor to look around the room during the interview.

## Contact information

For further information, please call our Business Relations Team on 01872 242711 or email [apprenticeships@truro-penwith.ac.uk](mailto:apprenticeships@truro-penwith.ac.uk)

\* A guide to GCSE grading and Functional Skills

Department for Education

| GCSE Grading          |                       |
|-----------------------|-----------------------|
| New Grading Structure | Old Grading Structure |
| 9                     | A*                    |
| 8                     |                       |
| 7                     | A                     |
| 6                     |                       |
| 5                     | B                     |
| 4                     | C                     |
| 3                     | D                     |
| 2                     | E                     |
| 1                     | F                     |
|                       | G                     |
| U                     | U                     |

Standard Pass → 4

| Functional Skills are equivalent to GCSE's, the table below shows the comparison |                         |
|--|-------------------------|
| Entry Level 1  | GCSE below G or Level 1 |
| Level 1  | GCSE D-G or level 1-3   |
| Level 2  | GCSE A*- C or level 4-9 |