Lincoln College
Lincoln / Newark / Gainsborough

ENGINEERING OPERATIVE
APPRENTICESHIP STANDARD

Standard Code ST0537
Course Level 2
Day Release
Location: Lincoln
Funding Level £6000
Duration 23 months including EPA

Course Description

Engineering Operatives are key to the success of the Manufacturing and Engineering sector allowing employers to grow their business while developing a workforce 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 the course of 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.

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; 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.

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 and Founding/Casting Operative.

See Annex A for pathway information

Off the Job Training

A key requirement of an Apprenticeship is Off-the-job training. This must make up an average of 6 hours per week of the apprentice's working hours, over the total duration of the apprentice's planned training period. Off-the-job training must be directly relevant to the apprenticeship standard and must take place within the apprentice's normal working hours. The new learning must be documented and reflected on through the Learner Journal on their e-portfolio.

Entry Requirements

The Apprentice will need to be in a relevant role and show a willingness to undertake the knowledge, skills and behaviours required. They will also need to have Level 2 Maths and English (GCSE at Grade 4/C or above or equivalent) or be prepared to attend a block study period for Maths and English if this is required.

Apprentices may be required to attend an interview and undertake relevant skills assessments. Once they have been accepted on to the programme all apprentices will be required to attend a Lincoln College Induction. Apprentices will require access to a tablet/computer to access their e-portfolio.

Knowledge, Skills and Behaviours

KNOWLEDGE

An Engineering Operative will understand and demonstrate knowledge of:

- 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

An Engineering Operative will have the Skills to:

- 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 and 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.

BEHAVIOURS

Manufacturing and Engineering organisations require their apprentices to have a set of behaviours that will ensure success both in their role and in the overall company objectives. The required behaviours are:

- 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, communicate 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.

Assessment

This depends on the programme chosen, at Lincoln normally one day per week at Lincoln College for the duration. If the employer prefers, candidates can attend Gainsborough for four days per week for a year, where extra units are delivered to meet the needs of local employers, both programs contribute towards the mandated 20% Off-The-Job Training required. Programmes will include workshop practice, theory sessions, work-based

assignments, industry visits and onsite mentoring facilitated by our dedicated engineering team.

Both programmes assessment is done through a combination of practical tasks, written assignments, oral discussions and online tests throughout the programme.

End Point Assessment

There will be an End Point Assessment (EPA) as the final stage of an Apprenticeship. The Apprentice must demonstrate their learning to an independent end point assessor and the overall grade available is distinction, pass or fail.

The EPA consists of 2 assessment methods:

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).

Professional discussion

To holistically assess KSBs across the standard and will be informed by reflective portfolio.

Qualifications

Level 2 Diploma in Engineering Operations (Skills) Level 2 Certificate or Diploma in Engineering Operations (Knowledge) The unit selection within these qualifications is tailored to the candidate's specific job role and can be found at Annex A. These units will develop Knowledge, Skills and Behaviours in addition to those core KSB detailed below.

Personal Protective Equipment (PPE)

- Safety footwear (Protective toe cap)
- Navy blue overall (boiler suit) – Flame retardant for Welding Apprentices
- Clear eye protection (CE or BS marked)

Course Text Book

- L2: Performing Engineering Operations L2 (Pearson ISBN-10: 0435075071)

General Equipment

- Pen
- Pencil
- Scientific Calculator
- Note book or paper with lever arch file.

Fees

As an Apprentice, you will pay no course fees. However, your employer may have to pay towards your training as well as providing you with a wage. All Apprentices are entitled to the national minimum apprentice wage within their first year of training from their employer, although they can, and often do, pay more. In the second and subsequent years of an Apprenticeship programme, if you are aged 19 or over, the national minimum wage for your age would apply [https://www.gov.uk/national-minimum-wage-rates]

If you are an employer and want to find out more information regarding employer contributions and any further costs related to the Apprenticeship programme, please contact our dedicated Apprenticeship team at employers@lincolncollege.ac.uk

Business Benefits

Employers have designed the Apprenticeship Standards to meet the needs of the sector and industry. Ensuring they include:

- Relevant Knowledge, skills and behaviours ensure that the Standard is relevant to the occupation.
- Widening participation Apprenticeship standards provide opportunities to employees that may not previously have been available.
- Development tools A cost effective way to train your employees to undertake specific roles in your business.
- Return on Investment On average, an apprentice who has completed their course will increase business productivity by £214 per week (CEBR, 2015)