ENGINEERING TECHNICIAN
APPRENTICESHIP STANDARD

Standard Code ST0457
Course Level 3
Day Release
Location: Lincoln or Gainsborough
Funding Level £26000
Duration 42mths including EPA

Course Description

Core Occupational Profile

Engineering Technicians in the Aerospace, Aviation, Automotive, Maritime Defence and wider Advanced Manufacturing and Engineering Sector are predominantly involved in highly skilled, complex work and must, as a minimum be able to:

- Apply safe systems of working
- Make a technical contribution to either the design, development, quality assurance, manufacture, installation, commissioning, decommissioning, operation or maintenance of products, equipment, systems, processes or services. Apply proven techniques and procedures to solve engineering/manufacturing problems. Demonstrate effective interpersonal skills in communicating both technical and non-technical information. Have a commitment to continued professional development
- Engineering Technicians take responsibility for the quality and accuracy of the work they undertake within the limits of their personal authority. They also need to be able to demonstrate a core set of behaviours in order to be competent in their job role, complement wider business strategy and development. This will enable them to support their long-term career development.
- Engineered and manufactured products and systems that Engineering Technicians work on could involve mechanical, electrical, electronic, electromechanical and fluid power components/systems

Off the Job Training

A key requirement of an Apprenticeship is Off-the-job training. This must make up at least 20% of the apprentice's contracted 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 (OneFile).

Entry Requirements

Level 2 English and Maths and either an engineering related qualification, an interest, or aptitude for engineering.

The Apprentice will need to be in a relevant role and show a willingness to undertake the knowledge, skills and behaviours 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 (OneFile) and complete.

Knowledge, Skills and Behaviours

KNOWLEDGE

- Understanding the importance of complying with statutory, quality, organisational and health and safety regulations.
- Understanding of general engineering/manufacturing mathematical and scientific principles, methods, techniques, graphical expressions, symbols formulae and calculations used by engineering technicians.
- Understanding the structure, properties and characteristics of common materials used in the sector.
- Understanding the typical problems that may arise within their normal work activities/environment.
- Understanding approved diagnostic methods and techniques used to help solve engineering/manufacturing problems.
- Understanding the importance of only using current approved processes, procedures, documentation and the potential implications for the organisation if this is not adhered to.
- Understanding and interpreting relevant engineering/manufacturing data and documentation in order to complete their job role.
- Understanding the different roles and functions in the organisation and how they interact.
- Understanding why it is important for an organisation to continually review their processes and procedures.

SKILLS

- Obtaining, checking and using the appropriate documentation (such as job instructions, drawings, quality control documentation).
- Working safely at all times, complying with health, safety and environmental legislation, regulations and organisational requirements.

- Planning and where applicable obtaining all the resources required to undertake the work activity.
- Undertaking the work activity using the correct processes, procedures and equipment.
- Carrying out the required checks (such as quality, compliance or testing) using the correct procedures, processes and/or equipment.
- Dealing promptly and effectively with engineering/manufacturing problems within the limits of their responsibility using approved diagnostic methods and techniques and report those which cannot be resolved to the appropriate personnel.
- Completing any required documentation using the defined recording systems at the appropriate stages of the work activity.
- Restoring the work area on completion of the activity and where applicable return any resources and consumables to the appropriate location.

BEHAVIOURS

Personal responsibility, resilience and ethics.
Comply with health and safety guidance and procedures, be disciplined and have a responsible approach to risk, work diligently at all times, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.
Comply with any organisational policies/codes of conduct in relation to ethical compliance.

Work effectively in teams
Integrate with the team, support other people, consider implications of their actions on other people and the business.

Effective communication and interpersonal skills
Open and honest communicator, communicating clearly using appropriate methods, listening to others and have a positive and respectful attitude.

Focus on quality and problem solving
Follow instructions and guidance, demonstrates 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 seeks opportunities to develop, adapt to different situations, environments or technologies and have a positive attitude to feedback and advice.

Assessment

On program learning will be supported by an engineering work-based assessor and our experienced college lecturing team. They will be assessed in the workplace across a broad range of duties closely mapped to the KSB's above. In addition to this they must also complete their mandatory qualifications which are found in **Pathway Specific Requirements**

and gain or hold before they are submitted for end point assessment level 2 in Maths and English.

All apprentices will be required to achieve as a minimum:

- An employer approved Level 2 Foundation Competence qualification.
- An employer approved Level 3 Development Competence qualification.
- An employer approved Level 3 Development Technical Knowledge qualification.
- Apprentices without Level 2 English and Maths will need to achieve this level prior to taking end point assessment.

See section **Pathway Specific Requirements of this Standard for further details** on the specific mandatory qualifications required for each job role.

End Point Assessment

The end point assessment is accessed via successful completion of Gateways 1 & 2

Gateway 1
Review & Assessment – Undertaken by the employer. The following must be completed before the apprentice can progress to the Development Phase of the apprenticeship:

a. The employer specified Level 2 Foundation Occupational Competence Qualification.
b. Where applicable the Level 2 Foundation Knowledge Qualification and/or satisfactory achievement /progress towards Yr. 1 Level 3 Technical Knowledge units as applicable to the occupational pathway requirements.
c. Satisfactory progress towards the employer required behaviours.

Note. As well as the mandated qualifications the following occupational pathways also requires the successful completion of an externally moderated Foundation Phase assessment: Mechatronics Maintenance Technician and Product Design and Development Technician.

Gateway 2
Review & Assessment - Undertaken by the employer in order to be ready for End Point Assessment the apprentice must have achieved:

a. Pass, Merit or Distinction in the selected Level 3 Technical Knowledge Qualification.
b. A binary grade Pass in the Level 3 Occupational Competence Qualification.
c. The required Behaviours aligned to EngTech or Military Professional Competence.
d. English and Maths qualifications at Level 2.

Once these requirements are met the apprentice may proceed to EPA
Occupational Competence will be awarded once:
As part of the End Point Assessment Viva Interview employers will assess apprentices against the core and the relevant occupational specific knowledge, skills and behaviours set out in the Standard pathways 1 to 13. B1.2 Professional Competence (EngTech) Employers

in partnership with relevant Professional Engineering Institutions (PEIs) will also assess the apprentices' competence against the internationally recognised professional standard for an Engineering Technician (EngTech):

- Use engineering knowledge and understanding to apply technical and practical skills.
- Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.
- Accept and exercise personal responsibility.
- Use effective communication and interpersonal skills.
- Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

Qualifications

- An employer approved Level 2 Foundation Competence qualification
- An employer approved Level 3 Development Competence qualification
- An employer approved Level 3 Development Technical Knowledge qualification
- Apprentices without Level 2 English and Maths will need to achieve this level prior to taking end point assessment

Progression

Apprentices who complete this apprenticeship will be classed as "Time Served Engineers" and as such opportunities within engineering are wide and varied. They may take on a promotion at their employers or look to develop their career in other areas of the UK or overseas. They may also choose to continue with their education and study engineering on an HNC/HND program or a degree.

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 must receive a minimum wage of £4.15 per hour 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, the national minimum wage for your age would apply.

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).