



Engineering Technician Apprenticeship



Level: 3 Duration: 42 to 48 months

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.

Aerospace and Aviation

- Aerospace Manufacturing Fitter
- Aerospace Manufacturing Electrical/Mechanical and Systems Fitter
- Aircraft Maintenance Fitter/ Technician (Fixed and Rotary Wing)
- Airworthiness, Planning, Quality and Safety Technical

Maritime Defence

- Maritime Electrical Fitter
- Maritime Mechanical Fitter

- Maritime Fabricator
- Maritime Pipeworker

Sector Wide

- Machinist ☑ Advanced Manufacturing Engineering
- Mechatronics Maintenance Technician
- Product Design and Development Technician
- Toolmaker and Tool and Die Maintenance Technician
- Technical Support Technician

Entry criteria: Applicants will be assessed and interviewed to demonstrate that they have the ability to cover the range required by the apprenticeship standard, at work. In addition, the apprentices are expected to have GCSE in four subjects including, Maths, English and a Science at A*- C or equivalent.

Delivery Model: This apprenticeship standard can be delivered in a number of ways:

- At the college campus (Enfield Campus)
- There are two intakes for the course (September and March).

Progression: Completing this apprenticeship programme with its transferable skills will enable progression into roles such as a higher apprenticeship in engineering such as HNC/HND or Degree apprenticeships in engineering.

Additional information: As well as ensuring full competency as an engineering technician, this standard provides the foundation for progression into a number of career paths within various engineering pathways. There are no entry requirements to the apprenticeship but employers may run their own selection process. Apprentices without Level 2 English and Maths will need to achieve this level prior to completion of their Apprenticeship.

Knowledge

You will know and understand:

- 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

You will be able to:

- 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

What is required

- 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

End Point Assessment

On Programme Assessment: Foundation Phase	On Programme Assessment: Development Phase	End Point Assessment
<p>Skills & Behaviours</p> <ul style="list-style-type: none"> Level 2 skills qualification – binary grade Pass, Fail Development of behaviours such as outward bound <p>Technical knowledge, understanding</p> <ul style="list-style-type: none"> Successful achievement of Level 2 and/or Level 3 qualification or progress towards employer selected Yr 1 knowledge units <p>Mandatory Qualifications See Section E1 for details on the mandated qualification requirements</p>	<p>Skills & Behaviours</p> <ul style="list-style-type: none"> Level 3 skills qualification – binary grade Pass, Fail Continue development of behaviours <p>Technical knowledge, understanding</p> <ul style="list-style-type: none"> Level 3 knowledge qualification graded Pass, Merit, Distinction <p>Mandatory Qualifications See Section E1 for details on the mandated qualification requirements</p>	<p>The employer undertakes a Portfolio based Occupational Competence Validation Interview (Viva)</p> <p>A nominated Professional Engineering Institution (PEI) or Military Independent Assessment Authority (MIAA) undertakes the independent assessment to determine if the apprentice has met the Engineering Technician requirements as defined by the UK-SPEC or relevant Military Professional Competence (MPC) requirements. The PEI/ MIAA will also undertake an independent quality assurance of the Employer Viva Interview documentation and checks that the employer approved mandatory qualifications achieved during the on programme phase and checked at Gateway 2 have been achieved and certificated (See Diagram 1a for full illustrated details of End Point Assessment)</p>



Apprentice Completion Certificate: Final employer Sign Off & PEI/MIAA applies for the Apprentice completion certificate.

