

L3 APPRENTICESHIP

ENGINEERING TECHNICIAN (TECHNICAL SUPPORT TECHNICIAN & PRODUCTION ENGINEER)

Overview

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.

Entry requirements

Grade 4 GCSE (C) or above in English and Maths

Who is the course for?

Technical Support Technicians, work as part of a team to provide technical support and expertise for all areas of the Engineering and Manufacturing function including communications software, test, analysis tools, measurement, off line programming, process control, performance and continuous improvement solutions, capacity planning, production scheduling/planning, product technical applications and capability, technical sales and marketing support, product development and innovation, engineering drawing, purchasing and/or supply of goods or services for engineering activities, quality control, inspection and e-commerce technologies as required. The requirements are designed to offer stretch and progression. They will be able to work with minimum

KEY INFORMATION

Typical Duration:
42 Months + 3 months EPA

Taught Days:
One day every week term time only

Delivery Location:
Truro

Funding value:
£26,000

(£1,300 employer contribution if required)

supervision, taking responsibility for the quality, accuracy and timely delivery of the work they undertake. They will be proactive in finding solutions to problems and identifying areas for improving the business.

Programme content

Knowledge

- Understand mathematical techniques, formula and calculations used in a technical support environment.
- Understand the methods and techniques used to evaluate technical data and documentation.
- Understand how to identify that the data and documentation being used is current and up to date.
- Understand the procedure to be used for making changes to issued documentation.
- Understand where and how to source other areas of technical expertise/information to help solve technical problems.
- Understand the requirements of the customer (internal/external) and support using the appropriate tools, equipment and processes.

Skills

- Produce technical documentation that contains all the relevant and necessary data and information required for the technical support activity being carried out.
- Save and store technical documentation in the correct format, location in accordance with organisational and/or customer requirements.
- Make any changes/amendments to the technical documentation using agreed quality assurance control procedures.
- Develop effective business and/or customer relationships.
- Provide technical advice and guidance to others.
- Contribute to the business by identifying possible opportunities for improving working practices, processes and/or procedures.

Plus, **one** of the following:

- Produce engineering/manufacturing production plans.
- Obtain resources for engineering/manufacturing activities.
- Obtain and control materials used in engineering/manufacturing environments.
- Implement quality control/assurance systems and procedures in an engineering/manufacturing environment.
- Provide technical support services on products or services to internal and/or external customers.
- Produce documentation to supply or procure goods or services.
- Produce offline programs for computer numerical controlled machines.
- Produce programs for scanning/digitizing or co-ordinate measuring machines.
- Produce programs for programmable logic control equipment.
- Produce programs for industrial robot applications.
- Produce engineering software tools/programs for analysis, quality, configuration management, safety assessments, system security applications.
- Produce engineering drawings/models using computer aided design techniques.
(such as mechanical, electrical, fabrication, fluid power, integrated systems or services)
- Undertake complex fault diagnostic and/or condition monitoring activities on equipment, plant or services.
- Carry out inspection activities on equipment/components/systems (such as mechanical, electrical, electronic, welded and fabricated).
- Check and calibrate control and test equipment used in an engineering and/or manufacturing environment.

Behaviours

- Personal responsibility, resilience and ethics. Comply with health and safety guidance and procedures, be disciplined and have a responsible approach to risk, always work diligently, 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.

- Focus on quality and problem solving.
- 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.

Gateway

- A Foundation Phase
- A Development Phase
- An End Point Assessment

In order to optimise success, candidates will typically have 4 GCSEs at Grade C/4 or equivalent, including Mathematics, English and a Science.

End point assessment

EPA methods

- An Occupational Competence Validation Interview (Viva) drawing from a portfolio of evidence of occupational competence.
- Professional competence assessment undertaken by independent assessor(s) from the relevant PEI/MIAA [using the Performance Indicators Recording Form].
- Final employer endorsement of occupational and professional competence and overall completion of the apprenticeship.

Contact information

For further information, please call our Business Relations Team on 01872 242711 or email 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 | A* |
| 7 | A |
| 6 | B |
| 5 | B |
| Standard Pass → 4 | C |
| 3 | D |
| 2 | E |
| 1 | F |
| | G |
| U | U |

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 |