

## Engineering Fitter (ST0432) Level 3 Apprenticeship

The broad purpose of the occupation is to produce complex high value, low volume components or assemblies in full or part, using machines, equipment or systems, to the required specification. For example, turbines, cranes, gearboxes, production lines, rigs and platforms. Fitters may typically have a mechanical, electrical, electronic, control systems, pipe fitting or instrumentation bias.

### Expected course duration

**4 years**

### College attendance

2 years day release attendance

Year 1 – Monday

Year 2 – Tuesday

### College Day Release intakes

**September**

### When can the apprentice start employment?

When offered job role and start date agreed with employer.

### When can the apprenticeship training start?

Training can start at any time and the college attendance will start in September.

### Course Content

AME Level 3 Units

#### **Electrical route:**

- Health and Safety in the Engineering Workplace
- Mathematics for Engineering Technicians
- Principles and Applications of Electronic Devices and Circuits
- Electronic Measurement and Testing
- Electrical and Electronic Principles in Engineering Communications for Engineering Technicians
- Engineering Project
- Further Engineering Mathematics
- Selecting and Using Programmable Controllers
- Further Electrical Principles
- Industrial Robot Technology

### **Mechanical Route:**

- Health and Safety in the Engineering Workplace
- Mathematics for Engineering Technicians
- Properties and Applications of Engineering Materials
- Mechanical Principles of Engineering Systems
- Engineering Drawing for Technicians
- Communications for Engineering Technicians
- Engineering Project
- Further Engineering Mathematics
- Electro-pneumatic and Hydraulic Systems and Devices
- Further Mechanical Principles
- Applications of Mechanical Systems in Engineering

## **Entry requirements**

- Must have GCSE Grade 4 or equivalent minimum in Maths and English.
- Must be in a role that fully supports the apprenticeship standard so Job description required.

## **What training is required in the workplace?**

### **Skills**

- Reading, interpreting, and understanding the component/assembly specification, diagrams, drawings and work instructions
- Planning component/assembly task – materials, tools and equipment
- Preparing work area for component/assembly task; sourcing required resources, tools/equipment
- Carry out relevant planning and preparation activities before commencing work activity and know how to source required resources and interpret detailed drawings, specifications and job instructions.
- Checking tools during and after task completion; identifying and reporting defects
- Measuring and testing, checking/inspecting component/assembly for example; use of micrometers, verniers, multimeters, volt meter
- Problem solving; analysing the issue and fixing the issue where appropriate
- Applying improvement techniques; recommending/implementing solutions where appropriate
- Communicating with colleagues and/or customers (internal or external)
- Completing component/assembly documentation for example job instructions, drawings, quality control documentation
- Reporting work outcomes and/or issues
- Restoring the work area on completion of the activity; returning any resources and consumables to the appropriate location and house-keeping.
- Disposing of waste in accordance with waste streams; re-cycling/re-using where appropriate Operating within limits of responsibility
- Operating in line with quality, health & safety and environmental policy and procedures; identifying risks and hazards and identifying control measure where applicable.

## Further study and career options

### Course progression:

Level 4 Engineering Standard to fulfil additional job role/responsibilities on completion of level 3 outcomes and EPA.

### Campuses

Study is available at our Bedford College campus.

### For more information, please visit here:

[Engineering fitter / Institute for Apprenticeships and Technical Education](#)