

MECHATRONICS MAINTENANCE TECHNICIAN APPRENTICESHIP LEVEL 3



For new or existing staff

This occupation is found in the aerospace, aviation, automotive, defence, logistics, pharmaceutical, energy, food and drink, and wider advanced manufacturing and engineering sectors which utilise automated equipment with integrated systems and interfaces. This requires the application of a blend of skills, knowledge and occupational behaviours across the electrical, electronic, mechanical, fluid power and control systems disciplines.

Qualification

Level 3 Diploma in Advanced Manufacturing Engineering

This standard aligns with the following professional recognition:

- Institute of Engineering and Technology (IET) for Engineering Technician
- Institution of Mechanical Engineers (IMechE) for Engineering Technician

Completers may want to progress to Manufacturing Engineer Level 6

Delivery model and duration:

Years 1–2 (College – 2 days/week)

- Year 1: Electrical & Electronic (Cheltenham)
- Year 2: Mechanical incl. pneumatics & hydraulics (Gloucester)

Years 3–4 (Workplace)

- On-the-job training
- Assessed knowledge, skills & behaviours
- Full occupational competency development

**Duration: 42 months plus
6 months End Point
Assessment**

The apprenticeship will cover the following core areas:

- Key technologies
- Fluid power
- Hydraulics
- Electrical systems
- Electronic systems
- Programmable logic controllers (PLCs)
- Robotics
- Mechanical systems
- Control systems

Benefits to business:

- Fill skills gaps in your organisation
- Keep the business up to date with the latest industry knowledge and innovative practice
- Develop new talent or existing employees looking to progress in their careers
- Benefit from full support from GC

Benefits for learners:

- Combine on-the-job training with academic study to gain the latest technical knowledge and practical industry experience at no cost
- Gain a valuable, nationally-recognised qualification

Ideal for:

- Field service maintenance technician
- Maintenance technician
- Maintenance team member
- Mechatronics technician
- Multi-skilled site maintenance technician

Entry Criteria:

GCSCs in English, maths and science at grades 9 - 4 or A* - C

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Components

- Level 2 Diploma in Engineering Operations
- English and Maths

End Point Assessment

The End Point Assessment will test the entire Standard, consist of:

- Practical observation with questions for at least 3 hours
- Interview underpinned by a portfolio of evidence; you will be required to submit a portfolio of evidence

Knowledge developed will include:

Engineering maintenance principles and typical maintenance problems

Engineering materials, consumables, standards and regulations

Risk identification, hazard control and safety procedures

Mechanical, electrical, electronic and control system principles

Key technologies including fluid power, hydraulics, PLCs, robotics and mechatronics systems

Fault finding techniques and maintenance strategies

Quality systems, software management and sustainability principles

Skills developed will include:

Use IT and interpret technical documentation

Plan and carry out maintenance activities safely

Conduct equipment assessment and fault diagnosis

Manufacture, repair and refurbish components using tools and machinery

Perform reactive, planned and preventative maintenance

Use testing and measuring equipment and apply engineering calculations

Produce sketches, records and technical reports

Maintain and store documentation including PLC and robot programmes

Behaviours developed will include:

Supportive of the needs and concerns of others

Committed to continued professional development (CPD).

Take personal responsibility for their own sustainable working practices.

Take personal responsibility for and promote health and safety.

Professionalism.