University of Central Lancashire
Training 2000

INFORMATION FOR LEARNERS

Machining Technician

Level 3

Machining technicians produce complex and precision machined products that are typically used in machinery. For example, aeroplanes and vehicles. They can also produce bespoke components or products for domestic appliances or medical equipment. They use a variety of machines to carry out their work. For example, centre lathes, vertical and horizontal milling machines, horizontal and cylindrical grinding machines. Electro discharge machines, single and multi-axis Computer Numeric Control (CNC) machine tools centres. Gear cutting and Gear Grinding machines.

Apprenticeships

European Union
European Social Fund

www.training2000.co.uk | 01254 54659 | info@t2000.co.uk

Machining Technician Level 3

Apprenticeship information

Duration

Up to 4 years

Year 1- Full time at Training 2000 or up to x3 blocks plus one day per week for the Technical Certificate

Year 2 - 1 day per week to complete the Technical Certificate / assessment in the workplace

Year 3/4 - assessment in the workplace

*six weeks is the maximum length of each block, some may be shorter

Entry requirements

A minimum of four GCSEs at grade 4 (C) or above including English, Maths, Science and Technology is desirable. Other equivalent qualifications are acceptable

Where will I study?

Training 2000 Blackburn

Our Apprenticeship includes:

- Training 2000 registration and pass
- Structured delivery programme
- Assessor visits and reviews in your workplace
- Synoptic / end point assessment

Typical topics covered:

- Preparing and using milling machines
- Producing components using hand fitting techniques
- Preparing and using lathes for turning operations
- CNC turning and CNC milling (optional blocks dependant on employer needs)
- General machining, fitting and assembly applications
- Health and safety in the engineering workplace
- Communication for engineering
- Mathematics for engineering techniques
- Properties and applications for engineering materials
- Advanced manual turning techniques
- Advanced manual milling techniques
- Engineering inspection and quality control
- Further engineering mathematics
- Mechanical principles of engineering systems
- Environmental engineering and sustainability

Once you've successfully completed your Apprenticeship you'll be able to:

- Conduct safety checks and performance monitoring for machining, associated equipment and surrounding work area.
- Receive, read and interpret engineering data and documentation, engineering drawings and technical data. Contribute to or plan the days machining schedule.
- Check and inspect materials to be machined to ensure that they conform to quality standards. Identify and report any issues or faults such as incorrect grades, dimensions and thicknesses.
- Plan and prepare sequence for the machining activities. Ensure that the correct tooling, work holding, and materials are used. This applies to conventional complex or CNC complex machining tasks.
- Set up, operate, adjust or edit conventional or CNC machining equipment settings and programmes for the machine tool being used.
- Machine high-quality complex components using a broad range of processes. For example, internal or external thread cutting, slots and pockets, internal or external under cutting. Also profile forms, tapered and eccentric diameters, bored holes, and tee slots.
- Inspect components produced. Adjust the machining equipment or programme and tooling to ensure components meet quality requirements.
- Identify, communicate and report issues affecting machining component quality, quantity and deadlines.
- Complete machining documentation at all stages of the work activity. For example, standard operational procedures, control documentation and contribution to audits.
- Maintain and restore the machining work area, performing housekeeping and waste management as appropriate. Ensure tools, unused materials and equipment are returned to a safe, clean and approved condition on completion of machining work.
- Keep stakeholders for example, customers, colleagues and line managers informed about machining work.
- Perform scheduled daily inspection and machine shut down or safe isolation.
- Support continuous improvement activity to address business problems.

How you'll be assessed?

At the end of your Apprenticeship you'll go through an end-point assessment (EPA) and be graded based on:

1. Knowledge test
2. Practical demo with questions
3. Interview, underpinned with portfolio evidence

Your Apprenticeship career path

Below is an example career path showing how you can earn, learn and study up to Degree level with an Apprenticeship. Training 2000 are part of the University of Central Lancashire which makes it easier than ever to progress on to a Degree Apprenticeship.

Careers

An Apprenticeship in Engineering can take you in many directions from an Aerospace Engineer to Nuclear engineer. You could even go on to own your own business.

Interested? Apply now

www.training2000.co.uk
01254 54659
info@t2000.co.uk

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UCLan