University of Lancashire
Training 2000

INFORMATION FOR STUDENTS

Apprenticeships

Machining Technician

Level 3 Apprenticeship

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.

Duration:
3-4 years depending on employers needs

Year 1* - 17 weeks full time at Training 2000

OR x3 five week blocks and x1 two week block 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

Where will I study:
Training 2000, Blackburn

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

*Year 1 blocks could take between 12 and 18 months to complete. Full time or block training to be decided by employer.

Pathways available within this Apprenticeship:

- Turning - Spinning a piece of material on a lathe to shape it, like making round parts
- Milling - Using a machine to cut shapes and features into metal or other materials

What you'll learn

Safety
Conduct safety checks and performance monitoring for machining, associated equipment and surrounding work area.

Interpreting data
Receive, read and interpret engineering data and documentation, engineering drawings and technical data. Contribute to or plan the days machining schedule.

Quality control
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.

Planning
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.

Operations
Set up, operate, or adjust conventional machines or set up, prove and validate CNC machining equipment settings and programs for the machine tool being used.

Machining components
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.

Evaluation
Inspect components produced. Adjust the machining equipment or program and tooling to ensure components meet quality requirements.

Reporting issues
Identify, communicate and report issues affecting machining component quality, quantity and deadlines.

Standard operational procedures
Complete machining documentation at all stages of the work activity. For example, standard operational procedures, control documentation and contribution to audits.

Working environment
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.

Communication
Keep stakeholders for example, customers, colleagues and line managers informed about machining work.

Inspections
Perform scheduled daily inspection and machine shut down or safe isolation.

Continuous improvement
Support continuous improvement activity to address business problems.

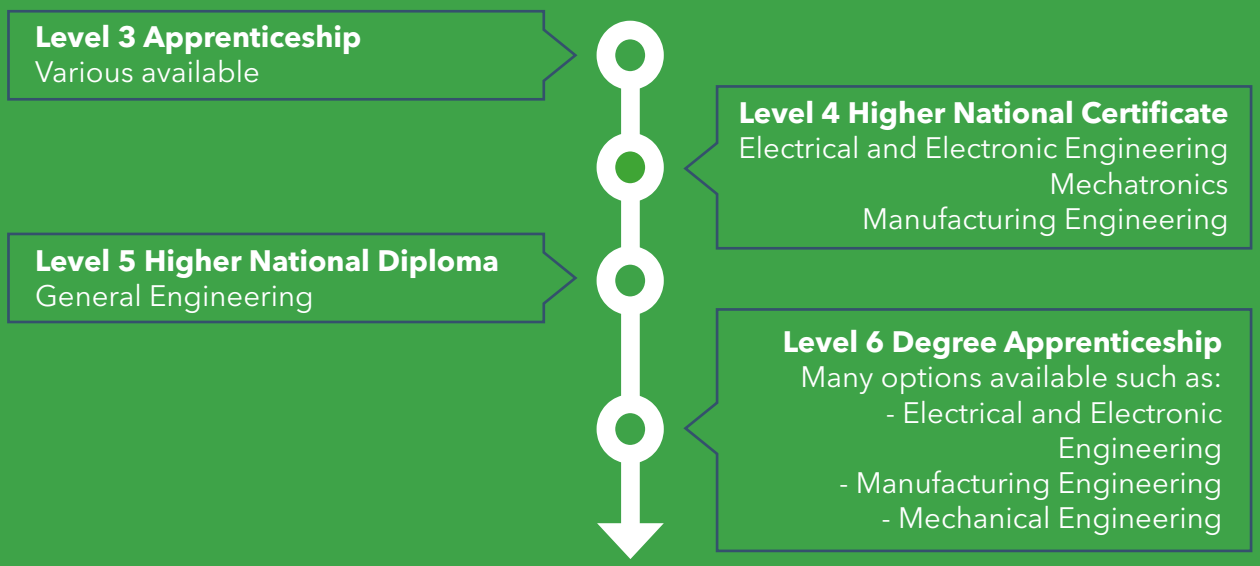
How you'll be assessed?

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

1. Knowledge test
2. Practical demonstration with questions
3. Interview / portfolio of 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 Lancashire which makes it easier than ever to progress on to a Degree Apprenticeship or Degree.



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? Apprenticeships start throughout the year. Apply now!

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

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