Training 200







Engineering and Advanced Manufacturing

Training and Apprenticeships

With over 50 years' experience in developing and delivering high quality Engineering training programmes, Training 2000 has helped many companies to remain competitive by creating a 'World Class' multi-skilled workforce.

Apprentices are the future. They are there to add to our workforce and to also replace an aging workforce

- Ken - Altham Fabrication

Part of the University of Central Lancashire



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

Lean Manufacturing Operative

Duration: 18 months (apprentice assessed in your workplace approximately every 5 weeks)

Commitment: The apprentice is required to spend at least 6 hours per week completing 'off the job' training. This could include their lessons at Training 2000, online training, industry visits, competitions and shadowing.

Entry requirements:

A minimum of two GCSEs at grade 3 (D) or above in English and Maths.

Funding your Apprenticeship:

Levy paying employers: £6,000 Non-levy, 5% contribution: £300 Fewer than 50 employers with a 16-18 year old apprentice: £0

Pathways available within this qualification

- Production and assembly
- Inspection and quality
- Logistics and material handling
- Production processing / finishing

Core topics covered:

- Health & Safety
- Environmental procedures and systems
- Production

- Lean Manufacturing Operations
- Quality Control
- Problem Solving

- Continuous Improvement
- Communication
- Work Place Organisation

LEVEL 2 APPRENTICESHIP

Engineering Operative

Duration: 12-18 months

Commitment: x3 four week blocks and one week of Business Improvement Techniques (BIT) at Training 2000.

The apprentice is required to spend at least 6 hours per week completing 'off the job' training. This could include their lessons at Training 2000, online training, industry visits, competitions and shadowing.

Entry requirements:

A minimum of two GCSEs at grade 3 (D) or above in English and Maths.

Funding your Apprenticeship:

Levy paying employers: £6,000 Non-levy, 5% contribution: £300 Fewer than 50 employers with a 16-18 year old apprentice: £0

Pathways available within this qualification

- Maintenance
- Mechanical manufacturing
- Electrical and electronic
- Fabrication
- Materials processing or finishing
- Technical support

Core topics covered:

- Interpret engineering drawings
- Health, safety and environment
- Roles and responsibilities
- Engineering operational practices, processes and procedures
- Communication
- Problem solving
- Obtain and follow the correct documentation, specifications and work instructions
- Select and use appropriate tools, equipment and materials

General Welder

Duration: 18 months

Commitment: x3 four week blocks OR 1 week every six weeks (approx) or a mixture of both to

suit your needs.

Entry requirements:

A minimum of two GCSEs at grade 3 (D) or above in English and Maths.

Funding your Apprenticeship:

Levy paying employers: £9,000 Non-levy, 5% contribution: £450 Fewer than 50 employers with a 16-18 year old apprentice: £0

Topics covered:

- Produce good quality welds using two welding process/material type combinations
- Basic mechanical properties and weldability of welded materials
- Meet international standards for dimensional and surface inspection
- Position, prepare and check the welding equipment
- Receive, handle and maintain consumables
- Check the finished weld ready for inspection
- Understand the terminology, operation and controls for the selected arc welding processes, joint types and welding positions
- Identify and understand the causes of typical welding defects and how their occurrence can be reduced, for the materials and welding processes selected
- Health and safety requirements

LEVEL 3 APPRENTICESHIP

Metal Fabricator

Duration: Up to 4 years

Commitment: Year 1 - full time at Training 2000 OR x6 four week blocks and 1 day per week to complete the Technical Certificate (if required)

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

Year 3/4 - assessment in the workplace

Funding your Apprenticeship:

Levy paying employers: £27,000 Non-levy, 5% contribution: £1350 Fewer than 50 employers with a 16-18 year old apprentice: £0

Entry requirements:

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

- Working safely
- Plan and prepare
- Check materials conform to the specified grades, dimensions and thicknesses identified on detailed engineering drawings
- Correct methods for the moving and handling resources and materials
- Set up, check AND adjust the equipment for use in the safe and reliable fabrication of metal products or components
- Interpret technical drawings, patterns, templates and specifications to mark out, produce and assemble complex fabricated products
- Use appropriate tools, equipment and techniques to shape and form (hot or cold) metal materials
- Monitor resources and activities throughout the fabrication of products or components
- Cutting, drilling, shaping and preparing metal materials during fabrication

- Operate appropriate tools and equipment to join metal parts using a range of mechanical fasteners and fixing techniques
- Operate thermal joining equipment to join metal parts using a range of appropriate techniques
- Inspect and test joins for security
- Carry out quality checks on component parts and completed assemblies

Engineering Technician

Duration: Up to 4 years

Commitment: Year 1 - full time at Training 2000 OR x6 four week blocks and 1 day per week to complete the Technical Certificate (if required)

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

Year 3/4 - assessment in the workplace

The apprentice is required to spend at least 6 hours per week completing 'off the job' training. This could include their lessons at Training 2000, online training, industry visits, competitions and shadowing.

Funding your Apprenticeship:

Levy paying employers: £26,000 Non-levy, 5% contribution: £1300 Fewer than 50 employers with a 16-18 year old apprentice: £0

Pathways:

- Mechatronics Maintenance Technician
- Toolmaker and Tool and Die Maintenance Technician
- Technical Support Technician

Entry requirements:

A minimum of four GCSEs at grade 4 (C) or above including English, Maths, Science and Technology is desirable

Core topics covered:

- Importance of complying with statutory, quality, organisational and health and safety regulations
- General engineering/manufacturing mathematical and scientific principles, methods, techniques, graphical expressions, symbols formulae and calculations used by engineering technicians
- Diagnostic methods and techniques used to help solve engineering/manufacturing problems
- The importance of only using current approved processes, procedures, documentation and the potential implications for the organisation if this is not adhered to
- Relevant engineering/manufacturing data and documentation
- Different roles and functions in the organisation and how they interact
- Dealing promptly and effectively with engineering/ manufacturing problems within the limits of their responsibility using approved diagnostic methods and techniques and report those which cannot be resolved to the appropriate personnel

LEVEL 3 APPRENTICESHIP

Fire Emergency and Security Systems

Duration: 3 years

Commitment: x24 one week blocks

Entry requirements:

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

Funding your Apprenticeship:

Levy paying employers: £18,000 Non-levy, 5% contribution: £900 Fewer than 50 employers with a 16-18 year old apprentice: £0

- Health and Safety
- Electrical and electronic principles
- Practices and procedures
- Core Systems techniques
- System technologies
- Environmental principles
- Customer service
- Communication
- Commercial awareness

Engineering Fitter

Duration: Up to 4 years

Commitment: Year 1 - x3 four week blocks

Year 2 - 1 day per week

Year 3-4 - assessment in the workplace

Entry requirements:

A minimum of four GCSEs at grade 4 (C) or above including English and Maths.

Topics covered:

- Interpreting and following drawings/diagrams and/or specifications
- Planning work activity, including resources, equipment and tooling
- Producing individual components
- Re-furbishing components
- Assembling components to produce equipment, machine or system
- Quality checking and adjusting components or assembly against required specification
- Identifying and resolving problems with components or assembly

LEVEL 3 APPRENTICESHIP

Machining Technician

Duration: Up to 4 years

Commitment: Year 1- Full time at Training 2000 or up to x5 six* week blocks plus a 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

Funding your Apprenticeship:

Funding your Apprenticeship:

Levy paying employers: £21,000 Non-levy, 5% contribution: £1050

Fewer than 50 employers with

a 16-18 year old apprentice: £0

Levy paying employers: £27,000 Non-levy, 5% contribution: £1350 Fewer than 50 employers with a 16-18 year old apprentice: £0

Entry requirements:

A minimum of four GCSEs at grade 4 (C) or above including English and Maths.

- Preparing and using milling machines (Mandatory block)
- Producing components using hand fitting techniques (Mandatory block)
- Preparing and using lathes for turning operations (Mandatory block)
- CNC turning and CNC milling optional blocks (Training 2000 certified)
- 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







HNC in Electrical and Electronic Engineering

Duration: 2 years - starts in September each year

Commitment: One day per week

Cost: £2000 per year

Entry requirements:

Ideally completed a Level 3 qualification in

engineering or equivalent

Topics covered:

- Engineering maths
- Engineering science
- Engineering design
- Managing a professional engineering project
- Mechanical principles
- Electrical systems and fault finding
- Electrical and electronic principles
- Electro, pneumatic and hydraulic systems
- Automation, robotics and programmable logic controllers (PLCs)
- Lean manufacturing

LEVEL 4 HIGHER NATIONAL CERTIFICATE

HNC in Operations Engineering

Duration: 2 years - starts in September each year

Commitment: One day per week

Cost: £2000 per year

Entry requirements:

Ideally completed a Level 3 qualification in

engineering or equivalent

Topics covered:

- Engineering maths
- Engineering science
- Engineering design
- Managing a professional engineering project
- Mechanical principles
- Automation, robotics and programmable logic controllers (plcs)
- Operations and plant management
- Electro, pneumatic and hydraulic systems
- Electrical systems and fault finding
- Lean manufacturing

LEVEL 4 HIGHER NATIONAL CERTIFICATE

HNC in Manufacturing Engineering

Duration: 2 years - starts in September each year

Commitment: One day per week

Cost: £2000 per year

Entry requirements:

Ideally completed a Level 3 qualification in

engineering or equivalent

- Engineering maths
- Engineering science
- Engineering design
- Managing a professional engineering project
- Mechanical principles
- Quality and process improvement
- Machining and processing of engineering materials
- Lean manufacturing

- Production engineering for manufacture
- Operations and plant management

LEVEL 5 HIGHER NATIONAL DIPLOMA

HND in General Engineering

Duration: 1 year - starts in September each year

Commitment: One day per week

Cost: £2000

Entry requirements:

Our one year top up from HNC to HND is obtained by studying a further six units at Level 5

Topics covered:

- Professional engineering management
- Further mathematics
- Research project

- Advanced mechanical principles
- Further thermodynamics
- Sustainability

Our engineering and advanced manufacturing training courses

We deliver an extensive range of accredited courses in Technical Services, Electrical & Mechanical Maintenance, Welding & Fabrication, Manufacturing Processes and can develop bespoke skills improvement programmes to meet your specific requirements.

Training course	Duration	Cost (ex VAT)

Basic Electrical Maintenance	5 days	£765
Basic Mechanical Maintenance	5 days	£765
Introduction to Programmable Logic	4 days	£610
Portable Appliance Testing (C&G 2377)	2 days	£260
PUWER 1998 Abrasive Wheels	½ day	£150
Welding Principles	3 days	£450
18th Edition Wiring Regulations BS76712018 (City and Guilds 2382-22)	4 days	£450

If you have any specific training needs that are not listed above, please get in touch

View the latest course dates and book online:

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