



Tameside

College





In our Engineering courses, you will develop your skills and knowledge in a wide range of Engineering disciplines.

There are a range of pathways to choose from, with some that develop more practical skills rather than the technical aspects of Engineering depending upon the entry criteria.

In all our courses, you will have access to the latest industry standard machinery and equipment and this will enable you to prepare for the world of work or progression to higher academic levels.





# **Courses available:**

### Level 2 - Engineering Operative (Foundation Competence)

There are three pathways on offer, which are designed to develop practical knowledge and skills in **Fabrication & Welding**, **Mechanical Manufacturing** and **Engineering Maintenance**.

Each pathway has the following core units: Health & Safety, Working Efficiently and Effectively in Engineering Environment, Using and Communicating Technical Information

Optional units being delivered on each pathway are:

**Fabrication & Welding** – Manual Metal Arc Welding (MMA), METAL Inert Gas Welding (MIG), General Fabrication & Welding Applications and Producing Sheet Metal Components & Assemblies

**Mechanical Manufacture** – Producing Components Using Hand Fitting Techniques, Preparing and Using Lathes for Turning Operations, Producing CAD Models (Drawings) Using a CAD System:

**Engineering Maintenance** – Producing Components Using Hand Fitting Techniques, Maintaining Mechanical Devices and Equipment, Electrical Wiring and Testing





It's Official

is a 'Good' college



### <u>Level 3 – Diploma in Advanced Manufacture Engineering</u> (Developmental Knowledge)

This is a two year course and there are three pathways on offer which are designed to further develop knowledge and practical skills from level 2 or this course can be accessed directly provided suitable entry criteria have been achieved. Progression would lead to an apprenticeship or employment.

Each pathway has the following core units : Health & Safety in the workplace, Communications for Engineering Technicians and Mathematics for Engineering Technicians

# Optional units for each pathway may include:

### Fabrication & Welding -

Engineering Project, Computer Aided Design Techniques, Fabrication and Welding Principles, Producing Sheet Metal Fabrications, MIG Welding, TIG Welding and MMA welding

### Mechanical/Maintenance -

Engineering Project, Computer Aided Design Techniques, Mechanical Principles, CNC Machining, Maintenance of Mechanical Systems, Programmable Logic Control, Pneumatics & Hydraulics and Maintenance of Mechanical Systems, Engineering Drawing, Features and Applications of Electrical Machines



### Level 3 – Extended Diploma in Engineering

This is a two year course and is designed to give the learner a broad understanding of the world of Engineering with the potential for progression into employment and higher education such as a degree programme.

This course has the following core units: Engineering Principles, Delivering Engineering Processes Safely as a Team, Product Design and Manufacture, Applied Commercial and



Quality Principles in Engineering, Specialist Engineering Project, Micro Controller Systems for Engineers, Calculus to Solve Engineering Problems

Optional units for this course may include:

Computer Aided Design Techniques, Pneumatic and Hydraulic Systems, Electronic Circuit Board Design and Manufacture, Programmable Logic Control, Computer Numerical Control Machining Processes, Industrial Robotics





# Learning experience:

You will have opportunities to work using some of the best industry standard machinery and equipment in the country and gain valuable skills and knowledge via our first class work experience programme.

There are opportunities to gain valuable knowledge via trips and visits to key employers and be involved in forums with guest speakers who work for some of the largest Companies in Europe i.e. Siemens, National Oilwell Varco, Festo, Mills CNC, Amazon and others.

## **Progression routes:**

Level 2 courses offer learners progression onto the Level 3 programmes or into apprenticeships, provided suitable GCSE maths and English grades have been achieved.

Level 3 courses offer learners opportunities to progress onto Higher Education programmes such as Higher National Diplomas (HND) or other Degree Programmes.

There are also opportunities to progress into employment or apprenticeships









# **STUDENT SPOTLIGHT**

# Harriet Atkinson

<u>Attended</u>: Denton Community College <u>Study Programme</u>: Level 3 Extended Diploma in Engineering <u>Progression</u>: Building Information Modelling (Apprenticeship)

Harriet gained D\*D\*D\* on the Level 3 Engineering programme. Harriet told us: "As part of my study programme, I took part in work experience with a company doing BIM, this is what helped me decide on my future career path.



Tameside College and the work experience programme has really helped me set my foundations for the future."

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