LMI - LABOUR MARKET INFORMATION MANUFACTURING

Bexley, Greenwich, Newham, Enfield, Waltham Forest, Redbridge, Barking, Havering, Bromley





WHAT IS MANUFACTURING?

Manufacturing careers focus on producing goods by transforming raw materials into finished products through innovative processes and technology. This sector is vital for creating everything from everyday items to advanced machinery, supporting industries worldwide.

KEY CAREER AREAS INCLUDE:



Creative Industries: Manufacturing for fashion, textiles, and design, with a focus on East London's fashion hubs.



Technology & Electronics: Producing consumer electronics, software components, and tech hardware.



Food Production: Large-scale food and beverage manufacturing, including processing and packaging for distribution.



Manufacturing employs **30,000** people in Local London (3.6% of all jobs), higher than London's average but below the national average, with key hubs in Barking and



INDUSTRY CHALLENGES







A shortage of skilled workers in areas like machining, welding, and electrical engineering slows production.

Global supply chain issues can delay production and increase costs.

Smaller manufacturers face barriers to adopting expensive automation and digital tools.

Many skilled professionals are nearing retirement, with fewer young workers entering the sector to fill the gap.

East London's manufacturing sector is transforming with a focus on advanced production techniques and green manufacturing. The proximity to Thames Freeport enhances trade and logistics, creating new opportunities.

OPPORTUNTIES & TRENDS



5,000+ Job Advanced **Technologies:**

Al. robotics. and 3D printing are reshaping manufacturing, requiring a techsavvy workforce.



Localised **Production:**

Increased interest in "Made in London" products, with businesses focusing on local sourcing and shorter supply chains.





Creative Product **Development:**

Rise in customdesigned, small-batch manufacturing for fashion. furniture, and art, reflecting East London's creative culture. **Apprenticeships** and Up-skilling:

Employers are investing in vocational training to address the skills gap.

MANUFACTURING WHAT JOBS CAN I DO?

ENTRY LEVEL



WHERE ARE THE MOST JOBS NEEDED?







Actively listening during safety briefings or design reviews.



Explaining technical details to colleagues or presenting solutions to clients.



Troubleshooting machinery issues or optimising production processes.



Designing new products or improving existing designs.



Staying motivated during complex projects.



Setting and meeting quality benchmarks for manufacturing.



Managing a team for a project or production line.



Working with a team to meet production targets.

Rate your ability in each skill on a scale of 1⁽²⁾ to 5⁽³⁾. Can you provide any examples of when you have used each skill?

| SKILL | RATING (1 - 5) | Examples of when you have used this skill. |
|------------------|----------------|--|
| USTENING ())) | | |
| SPEAKING | | |
| CONTRACTOR | | |
| CREATIVITY | | |
| ANG POSHE | | |
| FIMING AVOS | | |
| LADERSHID | | |
| TEAMWORA | | |

MANUFACTURING WHAT QUALIFICATIONS **CAN HELP YOUR CAREER?**



ECONDARY SCHOOL

Mathematics: Essential for calculations, measurements and problem-solving in engineering.

Science (Combined or Separate): Understanding physics and chemistry principles relevant to engineering and manufacturing.

Design and Technology: Focuses on practical skills in designing and creating products.

Computer Science:

Useful for understanding programming and technical systems.

English: Important for effective communication and report writing.

FURTHER EDUCATION

A-LEVELS

Mathematics: Deepens understanding of advanced calculations used in engineering.

Physics: Essential for grasping engineering principles and mechanics.

Design and

Technology: Focuses on product design and development processes.

SCAN OR CLICK THE QR CODE TO EXPLORE THE DIFFERENT PATHWAYS



VOCATIONAL COURSES

Engineering: Covers mechanical, electrical, and manufacturing principles.

Manufacturing: Focuses on production processes, quality control, and engineering materials.

T-LEVELS

Engineering, Manufacturing, Processing and Control: Combines classroom learning with industry placements, focusing on engineering principles and manufacturing techniques.

Maintenance, Installation, and Repair:

Prepares for careers in maintaining and optimising engineering systems and machinery.

SCAN OR CLICK THE OR CODE TO EXPLORE THE AVAILABLE T-LEVEL SUBJECTS





APPRENTICESHIPS

Engineering Technician: Gain hands-on experience in mechanical, electrical or manufacturing engineering.

Manufacturing Engineer Apprentice: Work on production processes, materials handling and quality control.

Design Engineering Apprentice: Learn about product design, prototyping and manufacturing techniques.

Robotics Technician: Develop skills in installing, maintaining and programming robotic systems.

Click or Scan the QR code to visit the IfATE Occupational Maps to explore the different Apprenticeships available





HIGHER EDUCATION

UNDERGRADUATE DEGREE

Mechanical Engineering (BEng/BSc): Focuses on designing, developing, and testing mechanical systems and products.

Manufacturing Engineering (BEng/BSc): Specialises in production processes, materials and manufacturing technologies.

Electrical Engineering (BEng/

BSc): Covers electrical systems, automation, and control technologies used in manufacturing.

Industrial Design (BDes/BSc):

Concentrates on designing products with a focus on functionality and manufacturability.

Robotics Engineering (BEng/BSc):

Studies the design and application of robots and automation systems in manufacturing.

POSTGRADUATE DEGREE / MASTERS

Masters in Advanced Manufacturing (MSc): Focuses on modern manufacturing techniques, smart factories and production efficiency.

Masters in Mechanical Engineering (MSc): Advanced study in mechanical systems, design and manufacturing.

Masters in Robotics (MSc):

Specialises in robotic systems, automation and intelligent manufacturing technologies.

Masters in Industrial Design (MSc):

Focuses on advanced product design and manufacturing processes.



MANUFACTURING

CLASSROOM TO CAREER

How can you make a start on your career during your time in secondary school?

LEARN & EXPLORE

GAIN EXPERIENCE

DEVELOP SKILLS

NETWORK & CONNECT

PLAN FOR THE FUTURE Focus on subjects like Maths, Physics, and Design Technology. Try free online courses in engineering principles, CAD, or manufacturing processes.

Participate in school projects or clubs related to robotics or engineering. Look for part-time jobs or internships in manufacturing or workshops.

Practice problem-solving and critical thinking. Learn to use technical tools and software like CAD programs.

Attend engineering fairs or workshops. Join online communities for engineers and manufacturers.

Research careers in mechanical, electrical, or civil engineering. Explore college programs or apprenticeships in engineering and manufacturing.



MORE INFORMATION

Scan or click on the QR codes to become more informed about the different jobs and education and training options available to you.

