

Manufacturing Engineer BEng (Hons) Degree Apprenticeship

Black Country and Marches
Institute of Technology in Dudley
Level 6

Manufacturing remains one of the key industries for the UK. In its various guises, the UK manufacturing industry employs almost three million people, contributes approximately half of UK exports and two thirds of business research and development. The UK remains a global manufacturing power and is recognised as being the world's second biggest aerospace manufacturer, the world's second biggest defence exporter and one of Europe's biggest carmakers.

The West Midlands is seen as the manufacturing heartland of the UK, with many major companies located or re-locating here. High profile global manufacturers such as Jaguar Land Rover choose to house their UK operations around this region drawing their supply chain with them; the Black Country houses a cluster of successful Tier 1 aerospace suppliers including UTC Aerospace Systems, one of the world's largest suppliers of aerospace and defence products; Assa Abloy, the world's largest lock manufacturer has its UK

headquarters in the Black Country; and across the West Midlands region, almost 15,000 SMEs are underpinning our buoyant manufacturing sector.

The University of Wolverhampton is a committed driving force behind economic growth in the manufacturing sector and the region. This new Manufacturing Engineer Degree Apprenticeship is both needed and timely; it has the potential to help fill identified regional skills gaps in manufacturing companies of all sizes, and meet employers' needs to improve levels of knowledge, understanding and skills within their workforce.



Job roles/Occupations

Since many of the basic principles of manufacturing engineering apply to all manufacturing industries, this course will benefit numerous sectors, including: traditional engineering, plant and machinery, aerospace, automotive, biotechnology, clothing, food and drink, oil, pharmaceuticals, plastics and more. Manufacturing engineers improve processes, producing high quality goods efficiently using the most cost-effective methods. They are designers, as well as analytical and creative thinkers, and can operate alone but also as a team member working alongside engineers from various other disciplines. Further development can lead to chartered status and roles in allied professions in manufacturing, production and operations management, mechanical engineering, chemical engineering, design, and quality management.

How it works

The Degree Apprenticeship standard has been designed and developed in collaboration with many employers and professional bodies. Apprentices should be employed in roles where they are able to put their academic knowledge into practice via real life projects.

The usual duration for this course is three to four years and students will typically spend one day a week at the University. Delivery will be at Black Country and Marches Institute of Technology in Dudley and will include timetabled access to classrooms, lecture theatres, laboratories and workshops. There will also be occasional industrial visits and trips; and additional technician and teaching staff hours associated with teaching, project and practical activities, with further time committed to support Apprenticeship students in the workplace to satisfy the work-based learning elements of the Degree Apprenticeship.

Modules will include:

- Engineering Practice
- Innovative Design
- Analysing and Improving Processes
- Advanced Materials and Manufacturing
- Environment and Society
- Emerging Manufacturing Technologies.

Benefits

This Degree Apprenticeship will provide individuals with enhanced skills, knowledge and experience in a range of areas that will benefit businesses, including:

- manufacturing functions and procedures
- improved operations and working practices
- practical and logical approaches to problem-solving
- interpersonal, presentation and communication skills
- team working and people management
- the ability to work well under pressure and take on new challenges
- organisation and time management
- project management and the ability to work to tight deadlines
- commercial awareness
- improved awareness of health and safety issues.

Qualifications

On successful completion of this Apprenticeship, Apprentices will be awarded BEng (Hons) Manufacturing Engineering and their Apprenticeship Certificate. This will allow Apprenticeship graduates to work towards Incorporated Engineer (IEng) status within the Institution of Engineering and Technology (IET) or Institution of Mechanical Engineers (IMechE).

Entry requirements

Individual employers will set the selection criteria for their Apprenticeships. However, typically this would be five GCSEs at grade C or above, including Mathematics, English and a Science, Technology or Engineering related subject, as well as two A-levels at grade C or above in Mathematics and a Science related subject; or the successful completion of a BTEC in Engineering at Level 3. Mature applicants with sufficient experience and/or appropriate qualifications (other than those above) will be considered. Those who have already achieved one or more qualifications within this Apprenticeship standard may be eligible to join part-way through the course, thereby reducing the length of study.

Fees and funding

For employers with a payroll below £3 million: For employers who will not be paying the Apprenticeship Levy, the Government will pay 95% of the cost of the Apprenticeship training and assessment for Apprentices of any age. They may also be eligible for extra employer incentives.

For employers with a payroll above £3 million: Employers will be able to use their Apprenticeship Levy contributions towards the cost of the Apprenticeship using their digital account.

We will agree a payment schedule and discuss funding availability with each employer before starting any Apprenticeships to ensure the cost to a business is clear upfront.

Register your interest

Call: **01902 323127**

Email: apprenticeshiphub@wlv.ac.uk

wlv.ac.uk/apprenticeships