



Careers information sheet

Manufacturing and Product Design

Manufacturing in the UK includes textiles, shipbuilding, steel, pharmaceuticals, electronics and engineering, clothing and footwear, food and drink, the chemical industry, automotive and biotech industries.

Heavy industry such as steel production, and mass production of consumer items (such as computers and televisions) is moving to other countries with lower production costs. In the South East there is an increasing demand for research and development of new products, such as pharmaceuticals, and new technologies, such as aerospace. All these call for highly skilled employees.

The Manufacturing industry has three main elements:

- science and technology - such as product design, equipment, machinery and automation
- production systems - including processing and supply of materials; there is a strong emphasis on Lean Manufacturing and reducing waste (Just in time production)
- more generic business and enterprise activities such as marketing and finance.

Employers may be large international groups or small specialised companies and people employed in manufacturing include craftspeople, technicians, designers, surveyors, physicists and industrial chemists. Apprenticeships are a very popular way of gaining entry into manufacturing and can lead to studies to degree level. Some Graduate Apprenticeships may be available.

(Source: jobs4u)

Cross references: Engineering and IT as production are usually computerised

You can get your qualifications by taking vocational courses or studying while in employment as well as by the more traditional full time education route. The important thing is to choose a route that suits you.

Additional sources of information

There are several different Sector Skills Councils covering the Manufacturing industry:

Proskills - process and manufacturing including building products, coatings, extractives, glass and print industries.
<http://www.proskills.co.uk>

Semta – manufacturing
<http://www.semta.org.uk>

Cogent - Chemicals, Nuclear, Oil, Gas and Polymers
<http://www.cogent-ssc.com>

Skillfast UK - Apparel, Footwear and Textiles
<http://www.skillfast-uk.org>

Information on clothing design and manufacture
<http://www.careersinclothing.co.uk>

Food and Drink
<http://www.improveltd.co.uk>

The Institute of Operations Management is the professional body for those working in manufacturing and production supervision and management. The IOM offers short training courses and nationally recognised qualifications including by distance learning.
[http:// www.iomnet.org.uk](http://www.iomnet.org.uk)

Approved qualifications relevant to the manufacturing industry are offered by a range of organisations including:

- City and Guilds
<http://www.city-and-guilds.co.uk>
- EDI Goal
<http://www.goalonline.co.uk>
- EAL
<http://www.eal.org.uk>
- PAA\VQ-SET
<http://www.paa-uk.org/>
- Edexcel
<http://www.edexcel.org.uk>

What else should I be doing?

There's a lot you can do to help your Manufacturing career outside formal learning:

- find part time work/holiday jobs/work experience with a manufacturing company
- take part in Aimhigher activities, such as summer schools and taster days
- improve your teamwork and personal skills – especially communication and presentation
- develop your problem solving and thinking skills
- develop your IT skills
- try building small items of equipment and taking them apart

- read specialist magazines such as The Manufacturer
<http://www.themanufacturer.com>