



MSc Manufacturing Engineering and Management

Manufacturing engineers are employed in a wide range of industrial sectors from aerospace and automotive to pharmaceutical and food.

This course covers many aspects of industrial engineering and industrial management, and focuses on developing and integrating the knowledge, tools and techniques of advanced manufacturing technology and operations management. These skills are essential to many advanced manufacturing companies to ensure they remain competitive within the global supply structure and can improve productivity and quality, reduce costs, optimise their delivery of products and services and reduce their environmental impact.

Teaching is undertaken by experts in manufacturing and business and the syllabus comprises both compulsory and selective modules, including

manufacturing process capability, additive manufacturing, sustainable manufacturing, lean manufacturing, quality management, supply chain management and operations planning as well as ergonomics and human factors.

Students will:

- develop knowledge and understanding of industrial methods and the needs of manufacturing industries
- visit a range of companies to appreciate current manufacturing practice
- have opportunities for multi-disciplinary group activities, and group and individual presentations
- have the opportunity to undertake an individual three month summer project using some of our state-of-the-art advanced manufacturing and additive manufacturing equipment





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Course structure

The course consists of 120 credits of taught modules and a 60 credit independent research project undertaken over the summer term. Students must take six core modules, totalling 70 credits and five elective modules, totalling 50 credits. Please be aware modules may be subject to change.

Core modules

- Manufacturing Practice
- Manufacturing Process Capability
- Quality Management and Techniques for Industry
- Supply Chain Management

Optional modules

- Aerospace Manufacturing Technology
- Conservation and Recycling of Materials
- Design of Facilities and Operations Systems
- Food Factory Designs and Operations
- Health, Safety and Risk
- Human Computer Systems
- Industrial Ergonomics
- Innovation Management
- Fixturing Design for Advanced Manufacturing
- Joining Technology
- Managing Operations
- Management Science for Decision Support
- Flexible Automated Manufacture
- Rapid Product Development
- Sustainable Manufacturing
- Project Management
- Simulation and Digital Human Modelling
- Integrated Operations Planning and Control
- Risk and Safety Science for Engineers

Individual project

This project is a full-time 60 credit module that is supervised by a member of academic staff from the Department. It enables each student to work on manufacturing research or industrially linked area.

The project can also be undertaken in industry but this must either be arranged as part of an existing industrial sponsorship in the UK or overseas or you will need to apply to the company during the academic year.

Previous projects have included:

- Evaluation of micromachining systems
- Electrical discharge machining study of a machining alloy for Aerospace Applications
- Design of an innovative holding device for enabling the walking of a free-leg hexapod

Funding opportunities

Funding options can be found at:

Home and EU: www.nottingham.ac.uk/fundingPG

International: www.nottingham.ac.uk/internationalstudents/scholarships

Employment prospects

Manufacturing engineers are employed in a wide range of industrial sectors from aerospace and automotive to pharmaceutical and food and graduates from this degree programme are in great demand. Recent graduates have been employed at Rolls-Royce, Airbus, Unilever and Atkins and many are accepted onto PhD research.

Entry requirements

Applicants are usually required to have a upper second class honours degree (or international equivalent) in a relevant subject.

English language requirements:

- IELTS score of at least 6.5 with a minimum score of 6.0 in individual elements

Other qualifications are accepted.

How to apply

Candidates are encouraged to apply online at:
www.nottingham.ac.uk/pgstudy/apply

Contact us

For further information, please contact:
Graduate Admissions
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e: eng-student-support@nottingham.ac.uk
w: www.nottingham.ac.uk/m3

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