

Mechanical Engineering BEng (Hons)



Faculty of
**Technology, Engineering
and the Environment**

COURSE FACTS

Faculty	Technology, Engineering and the Environment
School	Engineering, Design and Manufacturing Systems
Application	Apply through UCAS. Institution code B25, Course code H300
Location	City Centre Campus, Millennium Point
Duration	Full-time: three years, part-time: five years, sandwich: four years



KEY FACTS

- This course is accredited by the Institution of Mechanical Engineers (IMechE) and the Institution of Engineering and Technology (IET) as partially satisfying academic requirements towards Chartered Engineer status (CEng).
- We have an outstanding suite of labs/facilities for engine testing, reverse engineering, rapid prototyping, simulation, engine emissions testing, thermodynamics and more.

WHY CHOOSE US?

- We are a lighthouse member of the SAP University Alliance Programme, a global initiative providing universities with the tools and resources to teach how technology can enable integrated business processes and strategic thinking.
- We also work with leading international technology and engineering solution provider, Technosoft, giving you the latest industry-standard computer-aided engineering (CAE) tools.
- Relationships with a number of sector bodies, including the Chamber of Commerce, the Accelerate Partnership and the Midlands Aerospace Alliance, directly benefit you by exposing you to 'real' live projects.

COURSE OVERVIEW

This course is designed to meet the needs required by industry, providing you with outstanding career prospects.

The course structure provides a general mechanical engineering foundation with specific themes in energy and the environment and design.

A range of transferable and marketable skills and knowledge lead to a variety of employment opportunities within the automotive and associated industries.

Engineering Design Theme	Applied Mechanics Theme	Energy and Environment Theme	Analysis and Management Theme	
YEAR 1				
Engineering Design and Practice	Applied Mechanics	Applied Thermodynamics	Material Science	Analysis
YEAR 2				
Sustainable Design and Manufacture	Mechanics and Dynamics	Environmental Studies and Thermofluid Analysis	Numerical Analysis	Management in Engineering Innovation
YEAR 3				
Design Management	Dynamics and Control	Power and Energy Systems	Advanced Engineering Analysis	Individual Project

COURSE STRUCTURE

The BEng (Hons) Mechanical Engineering course comprises of four themes:

- The Design theme covers design management and assurance through to designing for usability, manufacturability, and, ultimately, for recycling at end-of-life.
- The Energy and Environmental theme includes the detailed study of power transmission and generation systems followed by an understanding of the environmental impact, its management and the associated legislation that arises from the use of such systems.
- The Applied Mechanics theme provides an in-depth knowledge of stress analysis, finite element analysis and materials, together with the principles of the mechanics of solids.
- The Project theme provides an underpinning knowledge base for the other themes and an individual project.

ASSESSMENT

A range of assessment methods are used throughout the course including examinations, laboratory exercises and project work.

ENTRY REQUIREMENTS

- 280 points. Minimum of two six-unit or one 12-unit A-Level (GCE or VCE) including Maths at AS level
- Pass National Diploma with Distinction Merit Merit
- A Distinction in Maths for Technicians Unit or a Merit in Further Maths for Technicians Unit
- Advanced Diplomas with Mathematics for Engineers additional unit are accepted
- Irish: BBCCCC Highers including Maths
- Scot: BBBCCC Highers including Maths
- AB Adv. Highers including Maths
- IB: 30pts (including eight Highers including Maths)

FURTHER STUDY

The University has a range of either taught (MSc) or research (MPhil and PhD) postgraduate programmes. Details can be found on the postgraduate section of the website.

EMPLOYABILITY

Typical roles ahead of you could include performance and development engineering; design engineering; postgraduate research; or even employment outside the engineering-based industries where highly numerate graduates capable of in-depth analysis are required.

Graduates from the school have gone on to work for companies including Airbus, Bentley Motors, BMW, Cosworth Ltd, Daimler, Ford Motor Company, GKN, Honda, Hyundai Hellas, HBOS, Jaguar Cars, Land Rover, London Midland, Morgan Motor Company, Marconi, Rolls Royce, TRW.

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