

MSc in Mechanical Engineering at Lancaster University, UK

Take the next step in technology with Lancaster University

Mechanical engineering

Mechanical Engineering combines scientific principles, mathematics and 'realisation'. Scientific principles underpin all engineering, while mathematics is the language used to quantify and optimise solutions. Realisation encapsulates the whole range of creative abilities which distinguish the engineer from the scientist; to conceive, make and actually bring to fruition something which has never existed before.

Course details

The course comprises advanced topics in mechanical engineering with modules spanning engineering science, design and technology. The modules have been developed to complement departmental research along with our strong industrial links. Modules and projects are delivered by academic staff having international expertise in their discipline. This course will appeal to students progressing directly from undergraduate study in engineering or related fields; to more experienced professionals wishing to update their skills; to engineering graduates/professionals holding an accredited bachelors degree and seeking to fulfil the academic requirements for Chartered Engineering (CEng) registration with the UK Engineering Council (EC^{UK}).

Why Lancaster, UK?

The delivery team at Lancaster are multi-disciplinary and have extensive industrial Links. The project you will engage in will hence involve key industrial partners and knowledge of both fundamentals and industry application will be fundamental to the program.

Dr SM Green CEng FIMMM,
Director of Studies

On behalf of Lancaster University, I would like to invite you to apply to join us to study Mechanical Engineering to an advanced level via our MSc programme. The delivery team are world experts in their respective fields with extensive links to global companies.



The Programme

ENGR501	Design & Modelling of Systems	Structured methods, functional decomposition, modelling
ENGR503	Renewable Energy	Energy; wind, tidal, hydro-power, comp. methods.
ENGR504	Mechanics & Actuators	Mechanisms, mechanical design, modelling.
ENGR506	Intelligent System Control	Hierarchical control, rule based systems, self- learning systems
ENGR511	Advanced CAD/CAM	FEA (ANSYS), 3-D methods, PDM
ENGR540B	Individual Project	Carry out an industrially relevant project.



For more information please contact: **Dr SM Green**
s.green@lancaster.ac.uk

Employment Prospects

The knowledge and practical experience that you will acquire during your MSc study will position you well placed to take advantage of the many senior engineering and technology employment opportunities available at home and abroad. At the same time, you'll be developing capabilities that are much valued by employers more generally, where your problem solving, analytical skills and team working abilities will be in demand. The MSc Mechanical Engineering is accredited by the Institution of Mechanical Engineers (IMechE), on behalf of the Engineering Council, as fully meeting the academic requirement for Further Learning for Chartered Engineer (CEng) level registration.

Guidance from International Experts

You will benefit from the leadership of some of the world experts in their fields

Prof. J Ye. Professor of Mechanical Engineering with research interests across academic and industrial topics in structural modelling and strength of materials.



Dr S Campobasso Senior Lecturer with research interests across academic and industrial topics in thermo-fluids and computational modelling.



Prof. X Jiang. Professor of Mechanical Engineering with research interests across academic and industrial topics in heat transfer and combustion engineering.



Relevant & Industrially Linked Projects

You will participate in exciting projects that are both challenging and linked into real industrial need. These projects are where possible connected to an industrial partner and have led to employment for many alumni of the course. Examples are:

- Control design for a mobile robot used for nuclear decommissioning tasks
- Fire resistance of FRP-Concrete columns
- Wave powered eddy current heat generator for sea water desalination technologies
- Investigation of advanced air cooling using synthetic jets
- Exploration of Stability & Buckling of Various Structural Configurations of Composite Materials Under Different Environmental Loads
- Design and Control of High Performance Cars with Active Aerodynamic Systems
- Improved solar thermal system

Apply Now, 10 Scholarships available

10 postgraduate scholarships are available for the Master courses in Electronic Engineering and Mechanical Engineering.

- The scholarship award is worth £2,000 towards the course tuition fee.
- The scholarships are available for UK/EU and international students.
- The scholarships will be awarded on merit.
- Students are advised to apply at the earliest opportunity.

Our Facilities

You will be based in a brand new state-of-the-art facility opened in January 2015. The building is equipped with brand new laboratories fully equipped for the learning of mechanical engineering.