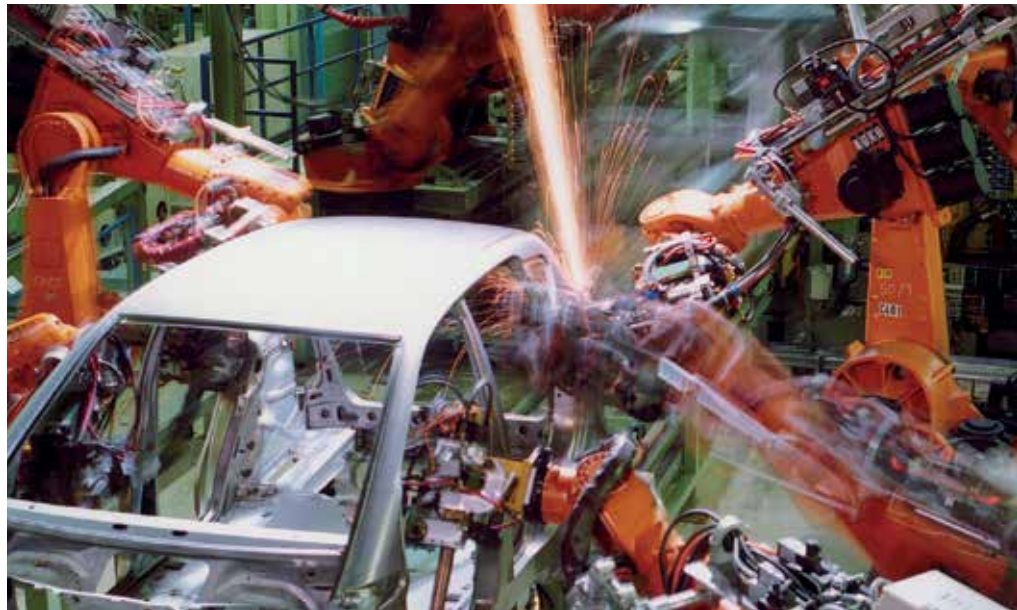




UNIVERSITY OF
BIRMINGHAM

MECHANICAL
ENGINEERING

ADVANCED MECHANICAL ENGINEERING MSc



Introduction to Advanced Mechanical Engineering

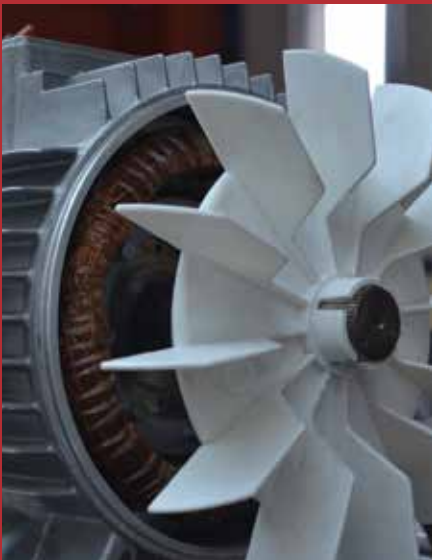
DEVELOP IN-DEPTH SKILLS AND KNOWLEDGE FOR FURTHER RESEARCH OR A REWARDING CAREER.

Mechanical Engineering at Birmingham produces postgraduates who are creative, highly numerate and skilled at solving problems and delivering results. This is possible only as a result of our first-rate staff and our on-going focus on excellence in engineering research and technology. From nanotechnology to vehicle and aero-technology, our research scales the full range of engineering disciplines to support manufacturing industry world wide.

'We are proud of our illustrious record in mechanical engineering research, 85% of which is, according to the latest Research Assessment, world-leading or internationally excellent. We have special strengths in Advanced Manufacturing, Biomedical Engineering, Micro and Nanotechnology and Vehicle Technology. Our expertise is in applying engineering science to solve problems of industrial and societal significance'.



Professor Duncan Shepherd
Head of Department
Mechanical Engineering



Advanced Mechanical Engineering

MSc

Why choose Birmingham?

- Learn from highly experienced members of academic staff who are at the cutting-edge of research and consultancy in their respective fields
- Prepare for a wide range of careers including design, consultancy, maintenance, operations and R&D in a spectrum of industrial sectors, such as manufacturing, aerospace, energy, automotive, micro/nano technology, nuclear and defence
- The Department of Mechanical Engineering, within the School of Engineering, enjoys a significant level of industrial engagement and sponsorship, from small-to-medium enterprises and world-leading companies such as Rolls-Royce, Jaguar Land Rover, and Airbus

Course content

This course consists of 180 credits, 40 credits from core modules, 80 credits from optional modules and 60 credits from your advanced project.

Core modules

- Integrated Design Project 3 (20 credits)
- Research and Professional Skills (20 credits)
- Advanced Project (60 credits)

Optional modules

- Advanced Manufacturing (Laser and Process Modelling) (20 credits)
- Advanced Vehicle Engineering (20 credits)
- Research and Application of Machining Processes (20 credits)
- Advanced Fuels and Powertrain Systems (20 credits)
- Bio-medical and Micro Engineering (20 credits)
- Industrial Automation and Robotics (20 credits)
- Intelligent Automation (Intelligent Systems and Robotics) (20 credits)



More about the course

In the autumn and spring semesters, you will study all of your taught modules as above. In the summer semester, you will undertake an individual project, working with research leaders in this field and enabling you to carry out in-depth research into particular fields in mechanical engineering.

World-class teaching and learning

Postgraduate study at the University of Birmingham is a chance to learn from world leaders in their fields. This guarantees you a first-class learning experience, leading to a qualification that is respected the world over and making you an attractive prospect in a very competitive job market.

Modules are delivered through a combination of lectures, seminars, tutorials, project-based and laboratory-based teaching and learning methods, providing a well-rounded educational experience and an opportunity to further develop skills prized by employers.

FACT FILE

Start Date: September

Duration: 1 year full-time, 2–3 years part-time

Fees for 2020–21: MSc: UK/EU – £9,900 full-time, £4,950 part-time; International – £23,310 full-time

Entry requirements: A high 2:2 Honours degree in Mechanical Engineering or Physics

Assessment methods include a range of examinations, coursework and projects. The Advanced Project module is assessed by a major report.

Enhance your professional prospects

Our Careers Network offers a range of events and support services designed to help you maximise your employability: from networking opportunities and career coaching workshops, to our effective-careers-strategy toolkit and one-to-one guidance. We also offer subject-specific careers consultants and advisers for each college and a dedicated careers website for international students.



LEARN MORE

For full module information and an online application form, please visit our dedicated web pages, or contact our programme staff with your questions.

Tel: +44 (0)121 414 5089

Email: pgtengineering@contacts.bham.ac.uk

NEXT STEPS

For module information and to apply, visit:

www.birmingham.ac.uk/adv-mechanical-engineering



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This leaflet was written several months in advance of the start of the academic year. It is intended to provide prospective students with a general picture of the programmes and courses offered by the School. Please note that not all programmes or all courses are offered every year. Also, because our research is constantly exploring new areas and directions of study some courses may be discontinued and new ones offered in their place.

Please note the information in this brochure is correct at time of publication but may be subject to change (November 2019).