

# Automotive Engineering MSc

www.cranfield.ac.uk/automotiveengineering



Automotive engineering is a rapidly-evolving field that offers a unique blend of challenges and rewards. The automotive industry is constantly pushing the boundaries of what's possible and has a great impact on the environment and society. Those employed within automotive engineering face the exciting challenge to develop vehicles that are safer, more efficient and sustainable.

Established for over 60 years with excellent industrial links and an outstanding record for the employment of its graduates, the Automotive Engineering MSc has been developed to provide the industry with high-calibre engineers that are equipped with the necessary skills to advance vehicle technology to meet the demands of the future.

# Who is it for?

The Automotive Engineering MSc is suitable for graduates in engineering, physics or mathematics and will prepare you for a career in this exciting field, from engine, chassis, suspension design to hybrid and electric vehicles and much more.

### Your career

Our postgraduate Automotive Engineering course provides you with the necessary skills for a career in the automotive industry. Cranfield's automotive graduates have an excellent employment record and currently occupy positions of high responsibility in industry, such as managers of research establishments, chief engineers, engine and vehicle programme managers. Some of our graduates decide to continue their education through PhD studies with Cranfield University.

Companies that have recruited graduates of this course include:

Aston Martin Lagonda Ltd, Bentley Motors, Cosworth, Jaguar Land Rover, McLaren Automotive Ltd, Mercedes AMG High Performance Powertrains, Nissan Motor Corporation, Prodrive, Red Bull Powertrains, Safran, Tata Motors Limited, Toyota Motor Europe, Triumph Motorcycles Ltd, Volvo Trucks.

### Overview

Start date October

**Duration** One year full-time

Qualification MSc

Study type Full-time

#### Structure

Taught modules 40%, group project 20%, individual research project 40%

Campus Cranfield campus

#### **Entry requirements**

We welcome applications from talented individuals of all backgrounds and each application is considered on its individual merit. Usually, applicants must hold:

A UK lower second-class (2:2) undergraduate degree with honours, as a minimum, or equivalent international qualification.

Ideally, applicants will have studied engineering, mathematics or an applied science subject.

Find information about equivalent qualifications in your country on our International entry requirements page.

Applicants who do not fulfil the standard entry requirements can apply for the Pre-master's course, successful completion of which will qualify them for entry to this course for a second year of study.

### Fees

Please see **www.cranfield.ac.uk/fees** for detailed information about fee status, full-time and part-time fees as well as deposit requirements and bursary and scholarship information.

# **Course details**

This course comprises eight compulsory taught modules that are assessed via a combination of written exams and individual coursework assignments, a group project and an individual research project.

### **Modules**

Keeping our courses up-to-date and current requires constant innovation and change. The modules we offer reflect the needs of business and industry and the research interests of our staff. As a result, they may change or be withdrawn due to research developments, legislation changes or for a variety of other reasons. Changes may also be designed to improve the student learning experience or to respond to feedback from students, external examiners, accreditation bodies and industrial advisory panels.

To give you a taster, we have listed below the compulsory and elective (where applicable) modules which are currently affiliated with this course. All modules are indicative only, and may be subject to change for your year of entry

### **Compulsory modules**

All the modules in the following list need to be taken as part of this course.

Automotive Engineering Induction

Vehicle Design, Propulsion and Performance

Automotive Control and Simulation

Vehicle Electrification and Hybridisation

**Vehicle Dynamics** 

**Powertrain Simulation and Performance** 

**Automotive Aerodynamics** 

Vehicle Structures

Vehicle Materials and Manufacturing

"Having spent a year working in the automotive industry I knew that a degree from Cranfield would greatly increase both my theoretical knowledge and career potential.

I believe that a degree from Cranfield improves initial employability and starts a candidate off with a strong advantage, but promotability requires something more; it requires knowledge, intuition and a hunger for opportunity."

#### **Ashley Finn**

Manager Cooling Systems - Powertrain, Aston Martin Lagonda, Automotive Engineering MSc

## Accreditation

The Automotive Engineering MSc is accredited by Institute of Mechanical Engineers (IMechE) and Institute of Engineering & Technology (IET), on behalf of the Engineering Council as meeting the requirements for further learning for registration as a Chartered Engineer (CEng).



For more information contact our Admissions Team: T: +44 (0)1234 758082

Come and find out if Cranfield is the right place for you. Visit campus for yourself or join us virtually to meet current students and academics at one of our upcoming open events: www.cranfield.ac.uk/study/ways-to-meet-us

Every effort is made to ensure that the information provided here is correct at the time it is published. Please check our website for the latest information.

March 2025