

Pre-master's in Engineering

www.cranfield.ac.uk/Premasters



This programme has been designed to prepare and enable students to enter the specialist engineering field of their choice, helping you to build a foundation of engineering knowledge and abilities that, upon course completion, will help you access and excel in your preferred master's degree.

Whether you're looking to take your career in a new direction but do not have sufficient or relevant academic or industry experience, or if your prior qualifications do not meet the requirements of your desired MSc, this programme will provide you with the relevant skills in mathematics, science and technology that will prepare you to pursue your chosen career path.

Who is it for?

- Those who wish to take their career in a new direction and advance their skills in engineering.
- Professionals who have been out of education for some time and wish to get back into the study routine before commencing an MSc programme.
- Graduates with an undergraduate degree in engineering, physics or mathematics that do not meet our standard entry requirements.
- Holders of a UK Ordinary/Pass degree (or equivalent for overseas students) who have industrial experience and cannot be admitted directly.
- Overseas students wishing to enhance their technical English language skills before entering a Cranfield MSc course.

Why this course?

The Pre-master's in Engineering is designed as a bridging programme with the following objectives:

- To enable direct admission to selected engineering master's degree courses from Cranfield University.
- To learn the personal and professional skills needed both for master's level study and in future career development.
- To refresh and enhance the understanding of engineeringrelated science and mathematics skills.
- To understand the methodologies, philosophies and tools used within industry and provide valuable experience of working on open-ended projects.

Your career

Engineers work in a dynamic environment where new technologies, methodologies and processes are being developed. The Pre-master's in Engineering course covers many aspects of general engineering fields including aerospace, automotive and offshore.

Overview

Start date October

Duration 10 months

Qualification Pre-master's

Study type Full-time

Structure Taught modules (70%), individual research project (30%)

Campus Cranfield campus

Entry requirements

Candidates will be considered individually and may be required to undertake this course as a condition of entry onto an eligible MSc programme.

Typical prerequisites include an ordinary degree or HND (Higher National Diploma) (with three years' experience) in engineering and physical science disciplines. Previous experience, aptitude and level of academic achievement will be assessed.

Students must have familiarity with elementary mathematical functions (polynomial, trigonometric, exponential and logarithmic for example), a sound working knowledge of algebra and understanding and competence in basic calculus (differentiation and integration). A basic knowledge of the application of mass, force and moments as well as a fundamental understanding of SI units are required for stress analysis.

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

The modules cover many aspects of general engineering applications.

The Pre-master's course in Engineering is an intensive, full-time course delivered through a mixture of lectures, practical laboratory sessions and design exercises.

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.

Basic Aerodynamics Aeronautical Engineering Computing Course Mathematics I and II Engineering Stress Analysis Thermofluids Computer Aided Design (CATIA) Propulsion and Power An Introduction to Engineering Materials and Failure Analysis Mechanical Design Research Methods "The degree I have from Cranfield helped me to get this job as this was also mentioned during my interview. Cranfield is well known in the industry and our CVs distinguish us from all the applicants when it comes to job hunting. I have started my career just at the place I wanted to, so I am happy that Cranfield enabled me to start off my dream career."

Eren Erol

Continuous Improvement Consultant, London City Airport, (Air Transport Management MSc 2022)

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

Visit campus for yourself and meet current students and our academics at our next Open Day: www.cranfield.ac.uk/openday February 2025

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.