Pre-master's in Engineering

Pre-Masters

This specialist course can be used as a stepping-stone to an exciting career in engineering and will prepare you if you do not meet the prerequisite entry requirements for many of our MSc courses. It is an intensive, full-time course delivered through a mixture of lectures, practical laboratory sessions and design exercises, over 10 months.

Course structure

The Pre-master's in Engineering is an intensive, full-time course delivered through a mixture of lectures, practical laboratory sessions and design exercises. The modules cover many aspects of general engineering applications. The taught component accounts for 70% of the total credits required and the individual research project accounts for 30%.

Individual project

The individual project is comprised of design exercises or a research project related to the chosen MSc course. It aims to enhance research methodology as well as develop engineering knowledge in your chosen field.

Future 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.

After successfully completing this course, you will meet the entry requirements for several of our postgraduate programmes.

Example modules

The modules cover many aspects of general engineering applications.

Compulsory:

- Aeronautical Engineering,
- An Introduction to Engineering Materials and Failure Analysis,
- Basic Aerodynamics,
- Computing Aided Design (CATIA),
- Computing Course,
- Engineering Stress Analysis,
- Mathematics I and II,
- Mechanical Design,
- Propulsion and Power,
- Research Methods,
- Thermofluids.

Duration:
Pre-master's: Full-time - 10 months.

Start date:
October.

Location:
Cranfield Campus.

Entry requirements:
Candidates will be individually considered 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 (with 3 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.

ATAS Certificate
Students requiring a visa to study in the UK may need to apply for an ATAS certificate to study this course.

Contact details

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For further information please visit
www.cranfield.ac.uk/premasters