



Thermal Power - Aerospace Propulsion option

MSc/PgDip

The key technological achievement underlying the development and growth of the aerospace industry has been the design and development of efficient and economical propulsion systems. Major efforts are also now being dedicated to the development of new technologies relevant to the propfan and variable cycle engines. Aerospace Propulsion is a specialist option of the MSc in Thermal Power.

This course has been designed for those seeking a career in the design, development, operation and maintenance of propulsion systems.

You will gain a comprehensive background in the design and operation of different types of propulsion systems for aerospace applications, whilst looking at the methods of propulsion with the main focus on air-breathing engines and the use of gas turbines for propulsion. Our graduates secure relevant employment within six months of graduation, and you can be sure that your qualification will be valued and respected by employers around the world.

Course structure

The course consists of taught modules and an individual research project. The modules are generally delivered from October to April.

Individual project

You are required to submit a written thesis describing an individual research project carried out during the course. Many individual research projects have been carried out with industrial sponsorship, and have often resulted in publication in international journals and symposium papers.

Future career

Many of our graduates are employed in the following roles and industries:

- Gas turbine engine manufacturers,
- Airframe manufacturers,
- Regulatory bodies,
- Regulatory bodies,
- Aerospace/energy consultancies,
- Power production industries,
- Academia: doctoral studies.

Example modules

The taught programme consists of compulsory and elective modules.

Compulsory:

- Combustors,
- Engine Systems,
- Gas Turbine Performance Simulation and Diagnostics,
- Turbomachinery and Blade Cooling,
- Management for Technology,
- Mechanical Design of Turbomachinery,
- Propulsion Systems Performance and Integration.

Duration:

MSc: Full-time - one year; PgDip: Full-time - up to one year.

Start date:

March or October.

Location:

Cranfield Campus.

Entry requirements:

A first or second class UK Honours degree (or its equivalent) in engineering, mathematics, physics or an applied science.

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

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/aerospacepropulsion