



# Gas Turbine Technology option - MSc in Thermal Power and Propulsion

[www.cranfield.ac.uk/GasTurbineTech](http://www.cranfield.ac.uk/GasTurbineTech)



**The UK continues to lead the world in power and propulsion technology. In addition to its established aerospace role, the gas turbine is finding increasing application in power generation, oil and gas pumping, chemical processing and power plants for ships and other large vehicles.**

Gas Turbine Technology is a specialist option of the Thermal Power and Propulsion MSc, providing a comprehensive background in the design and operation of different types of gas turbines for all applications.

## Who is it for?

This course is designed for those seeking a career in the design, development, operations and maintenance of power and propulsion systems. Graduates are provided with the skills that allow them to deliver immediate benefits in a very demanding and rewarding workplace and therefore are in great demand.

Suitable for graduates seeking a challenging and rewarding career in an international growth industry.

## Your career

Over 90% of the graduates of the course have found employment within the first year of course completion. Many of our graduates are employed in the following positions and industries:

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

Cranfield's Career Service is dedicated to helping you meet your career aspirations. You will have access to career coaching and advice, CV development, interview practice, access to hundreds of available jobs via our Symplicity platform and opportunities to meet recruiting employers at our careers fairs. Our strong reputation and links with potential employers provide you with outstanding opportunities to secure interesting jobs and develop successful careers. Support continues after graduation and as a Cranfield alumnus, you have free life-long access to a range of career resources to help you continue your education and enhance your career.

## Overview

### Start date

March or October

### Duration

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

### Qualification

MSc, PgDip

### Study type

Full-time

### Structure

Taught modules 50%, individual research project 50%

### 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 in engineering, mathematics, physics or an applied science discipline.

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.

### ATAS clearance

This course requires Academic Technology Approval Scheme (ATAS) clearance.

ATAS is run by the UK Government's Foreign, Commonwealth and Development Office (FCDO) and applies to international students, except exempt nationalities, who need a visa to study in the UK. Further information can be found in our Application guide.

## Fees

Please see [www.cranfield.ac.uk/fees](http://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 course comprises up to 12 taught modules, depending on the course option chosen. Modules for each option vary; please see individual descriptions for compulsory modules which must be undertaken. There is also an opportunity to choose from an extensive choice of optional modules to match specific interests.

### 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.

**Gas Turbine Performance, Simulation and Diagnostics**

**Mechanical Design of Turbomachinery**

**Turbomachinery and Blade Cooling**

**Combustors**

**Engine Systems**

**Management for Technology**

**Propulsion Electrification**

### Elective modules

Select one from the list below

**Computational Fluid Dynamics for Gas Turbines**

**Jet Engine Control**

**Marine Propulsion System Integration**

**Propulsion Electrification**

**Space Propulsion**

"Gas turbine engineering cuts across air, land, and sea applications, with a huge need for decarbonisation. As industries face the need to balance efficiency with emissions reduction, Cranfield graduates are well-positioned to make an impact."

**Dr Uyioghosa Igie**

Programme Director, Thermal Power and Propulsion MSc

## Accreditation

The Thermal Power and Propulsion MSc is accredited by Royal Aeronautical Society (RAeS) and the Institute of Mechanical Engineers (IMechE) on behalf of the Engineering Council as meeting the requirements for further learning for registration as a Chartered Engineer (CEng). Candidates must hold a CEng accredited BEng/BSc (Hons) undergraduate first degree to show that they have satisfied the educational base for CEng registration. Please note accreditation applies to the MSc award and PgDip do not meet in full the further learning requirements for registration as a Chartered Engineer.



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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/penday](http://www.cranfield.ac.uk/penday)**

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