



Airworthiness MSc

www.cranfield.ac.uk/airworthiness



Airworthiness is at the forefront of aviation development. It is vital that staff have sufficient knowledge and skill to apply principles in design, manufacture, operation and maintenance of aircraft to both develop and maintain airworthiness.

This part-time Airworthiness MSc offered by Cranfield University has been developed to meet industry demand for qualified airworthiness specialists and addresses key aspects of aircraft design, construction, operation and maintenance.

Who is it for?

The Airworthiness master's course is highly flexible and designed to meet the needs of individuals who are balancing work commitments with study. It is especially relevant to engineers and technologists working in the airworthiness field of aviation safety, either in a regulatory authority or in the industry. The format is especially suitable for those who wish to enhance and focus their knowledge in a structured but flexible, part-time format while continuing to work.

The subject of your research project can be chosen to match the research needs of your employer and/or your own career ambitions.

Why this course?

This course provides an academically-recognised, high-standard of qualification related to the spectrum of technologies met in aerospace. It offers a wide range of technical knowledge in the context of related regulatory and safety issues, a background that managers in today's aerospace industry need to possess. A detailed knowledge of airworthiness issues early in the product development stage helps the downstream business operation which must balance cost and safety. This will also help to optimise the aircraft design, modification and/or the repair process.

Your career

Many of our students are already in employment with aerospace/defence companies and choose to pursue an internationally-recognised qualification with Cranfield University to enhance their career. Graduates are able to use this qualification to obtain secure permanent positions abroad.

Destinations of our students vary as many remain with their sponsoring company, often being promoted upon completion of the course. Some companies have used the Airworthiness programme as pre-employment training.

Overview

Start date

September, February

Duration

Two-three years part-time

Qualification

MSc, PgDip, PgCert

Study type

Part-time

Structure

Taught component 50%, Individual research project 40%, Course portfolio 10%.

PgDip: Taught component 83%, Course portfolio 17%.

PgCert: Taught component 100%

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.

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

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 for detailed information about fee status, full-time and part-time fees as well as deposit requirements and bursary and scholarship information.

Course details

There are seven compulsory modules which aim to provide you with a common basis of knowledge and skills on which the specialist options can build further. You are then free to choose three elective modules in line with your developing interests.

The course uses a range of assessment types. Students can expect to have written examinations, assignments and presentations as well as the group design and individual research projects. The range of assessment methods have been chosen to develop skills and be of relevance to the taught materials.

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.

Airworthiness Fundamentals

Aviation Safety Management

Air Transport Engineering - Maintenance Operations

Airworthiness Dossier

Gas Turbine Fundamentals

Aircraft Fatigue and Damage Tolerance

Design of Airframe Systems

Safety Assessment of Aircraft Systems

Individual Research Project - MSc only

Elective modules

Select three from the list below

Practical Reliability

Aircraft Accident Investigation and Response

Fundamentals of Aircraft Engine Control

Manufacturing

Flight Experimental Methods

Design, Durability and Integrity of Composite Aircraft Structures

Introduction to Avionics

Introduction to Aircraft Structural Crashworthiness

Human Factors in Aviation Maintenance

"You don't realise until you finish the MSc how Cranfield changes your critical thinking about the industry. I was amazed about the stories shared by every speaker."

David Miret Mora

Technical Director, AJ Walter Group, Airworthiness MSc (2021)

Accreditation

The Airworthiness MSc is accredited by The Institution of Mechanical Engineers (IMechE) and Royal Aeronautical Society (RAeS), 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. PgDip and PgCert (if offered) do not meet in full the further learning requirements for registration as a Chartered Engineer.



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.

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