

# Safety and Accident Investigation

MSc/PgDip/PgCert

The MSc in Safety and Accident Investigation allows you to receive an internationally recognised qualification in the field of accident investigation. The majority of students join this course with the intention of receiving a qualification that will allow them to further their career development in accident investigation or other safety related areas of the air transport industry.

We have been a centre of excellence for aircraft accident investigation for almost 40 years. In 2011, we were awarded a Queen's Anniversary Prize for our world leading work in aviation safety through research and training in air accident investigation. An important aspect of this course is the use of hands-on workshops and simulations to develop the practical skills required as an investigator. This is complemented by sessions and modules that enable you to conduct rigorous research and scientific analysis, along with technical writing, investigation and interviewing techniques. The course format is suitable for professionals based all over the world, as teaching is in modules, and research and assessments can be completed remotely if necessary. Cranfield University is very well located for visiting part-time students from all over the world, and offers a range of facilities to support your studies.

### Course structure

The full MSc course consists of compulsory modules, Elective modules and an individual research project. Both the Fundamentals of Investigation and Applied Aircraft Accident Investigation modules are compulsory.

## Individual project

During year three, you will undertake a supervised research project on a subject of your choice within the aircraft accident investigation field. Building on pioneering work in the area of medical imaging, one of our recent MSc graduates has developed a state-ofthe- art technique with his research project 'Using 3D Computed Tomography in Aircraft Accident Investigation.

## Future career

This course allows you to receive an internationally recognised qualification in the field of accident investigation. The majority of students join this course with the intention of receiving a qualification that will allow them to further their career development in accident investigation or other safety related areas of the air transport industry. Previous students have been employed by dedicated government investigation agencies, airframe and power plant manufacturers, air traffic services, safety regulation, insurers, and the military.

## Example modules

Modules form only part of the course, with the project(s) and theses making up the balance. Please see the course structure for details.

The list below shows the modules offered in the 2019-20 academic year, to give you an idea of course content. To keep our courses relevant and up-to-date, modules are subject to change – please see the webpage for the latest information.

#### Compulsory:

Fundamentals of Accident Investigation,

Research Methods.

## Elective:

- Analysis Techniques for Accident Investigators
- Applied Aircraft Accident Investigation
- Applied Marine Accident Investigation
- Applied Rail Accident Investigation
- Aviation Safety Management,
- · Crisis Management and Business Continuity,
- · Flight Data Monitoring,
- Fundamentals of Material Failures for Accident Investigators,
- · Human Factors in Aviation Maintenance,
- · Investigating Human Performance,
- · Interviewing Techniques for Accident Investigators,
- Introduction to Aircraft Structural Crashworthiness.
- Legal Skills for Accident Investigators
- · Safety Assessment of Aircraft Systems

#### **Duration:**

MSc: Part-time - up to three years, PgDip: Part-time - two years, PgCert: Part-time - one year.

Start date: January or May.

Location:

Cranfield Campus.

#### Entry requirements:

The course is primarily aimed at those involved in accident investigation and other safety related industries. Applicants should have a good UK Honours degree (or equivalent) in any discipline, or a recognised lower qualification plus relevant work experience in aviation/safety related areas.

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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Every effort is made to ensure the information on this sheet is correct at the time it was produced in September 2019. Please check the web pages for the latest information.