

Academic year
2025/26 entry



Postgraduate master's courses in

Safety, human factors and accident investigation

Airworthiness MSc/PgDip/PgCert

Aviation Safety Management, Risk and Regulation MSc/PgDip/PgCert

Safety and Accident Investigation MSc/PgDip/PgCert

Safety and Human Factors in Aviation MSc/PgDip/PgCert

Cranfield University

Our reputation

We are the UK's only specialist postgraduate university in technology and management, with longstanding relationships with some of the most prestigious global companies. Our close collaboration with industry, and passion for the areas we operate in, will help your career.



Specialist postgraduate

A research-focused professional community.



We work with over

1,500

businesses and governments based in over 40 countries.



Over £150m

of investment in new facilities over the past five years.



5,000+

postgraduate students from 100+ countries.



A network of

80,000+

alumni, from 173+ countries.

As we are postgraduate only, we are not listed in many league tables that help compare undergraduate universities.

Accident Investigation at Cranfield

With a global reputation, Cranfield University was one of the first to run master's degrees in accident investigation.



Unique aerospace facilities

We have our own runway, our own airport, our own aircraft and our own air navigation service provider.



Top 30 in the world

for Engineering – Mechanical, Aeronautical and Manufacturing

QS World University Rankings by subject, 2023



Reasons to study safety, human factors and accident investigation with us

1

Heritage

We are an award-winning centre of excellence for aviation safety, human factors and accident investigation.

2

Industry links

Our close relationships with safety investigation agencies, safety regulators, airlines, manufacturers, military and other safety-critical organisations enable us to deliver courses that are taught by leading experts, drawing on a wealth of experience.

3

Flexible delivery

We recognise that the majority of students seek to further their careers or add skills and experience to their portfolio. Our courses are organised and resourced to provide flexible options to enable you to maximise limited study time.

4

World-class facilities

The University features its own airport, the National Flying Laboratory Centre (Saab 340B aircraft), Boeing 737-436, various flight simulators and accident investigation laboratory.

5

Hands-on learning

We use hands-on simulations and workshops to bring our teaching to life. Learn from experienced academics and industry professionals in an environment that prepares you for your future role.

6

Networking opportunities

Studying at Cranfield will bring you in close contact with leading safety professionals and practitioners from around the world, offering valuable connections and potential career development opportunities.

Courses

The Safety and Accident Investigation Centre delivers award-winning teaching, research and consultancy in safety management, human factors, airworthiness and accident/incident investigation.

Our work in aviation safety has been recognised at the highest level. We were awarded a Queen's Anniversary Prize in 2011 – the highest award a UK academic institution can receive – for research and training in aircraft accident investigation. In 2013 we received the Richard Teller Crane Founders Award from the Flight Safety Foundation for sustained corporate leadership in aviation safety.

Compulsory modules are listed in the order they are delivered. Elective modules are listed alphabetically.

The compulsory and (where applicable) elective modules offered in the 2024-25 academic year, are shown to give you an idea of course content. To keep our courses relevant and up-to-date, modules are subject to change so please check the latest information on our website.

Airworthiness

www.cranfield.ac.uk/airworthiness	Part-time	MSc, PgDip, PgCert
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Developed to meet industry demand for qualified airworthiness specialists, this part-time MSc addresses key aspects of aircraft design, construction, operation and maintenance.

Compulsory modules

- Airworthiness Fundamentals,
- Aviation Safety Management,
- Air Transport Engineering - Maintenance Operations,
- Course Dossier,
- Gas Turbine Fundamentals,
- Aircraft Fatigue and Damage Tolerance,
- Design and Development of Airframe Systems,
- Safety Assessment of Aircraft Systems.

Elective modules. Three of the following modules need to be taken as part of this course

- Design, Durability and Integrity of Composite Aircraft Structures,
- Flight Experimental Methods,
- Fundamentals of Aircraft Engine Control,
- Human Factors in Aviation Maintenance,
- Introduction to Aircraft Structural Crashworthiness,
- Introduction to Avionics,
- Manufacturing,
- Practical Reliability.



Accredited by:



ROYAL
AERONAUTICAL
SOCIETY



Aviation Safety Management, Risk and Regulation

www.cranfield.ac.uk/ASMRR

Part-time

MSc, PgDip, PgCert

In partnership with CAA International, this fully online course aims to provide a globally-unique offering to meet the needs of safety professionals in the industry and the regulator, offering the opportunity to engage with real safety problems of today and future challenges.

Compulsory modules

- Advanced Safety and Risk Management,
- Responding to Risk in Sociotechnical Systems,
- Aircraft Accident Investigation and Response,
- Aviation Legislation and Regulatory Approach.

Safety and Accident Investigation

www.cranfield.ac.uk/SAI

Part-time

MSc, PgDip, PgCert

This MSc will enable you to investigate and identify the systemic factors that lead to accidents; generating and communicating evidence-based recommendations that will improve system safety.

Compulsory modules

- Research Methods,
- Fundamentals of Accident Investigation.

Elective modules. Four of the following modules need to be taken as part of this course

- Analysis Techniques for Accident Investigators,
- Human Factors in Aviation Maintenance,

- Interviewing Techniques for Accident Investigators,
- Introduction to Aircraft Structural Crashworthiness,
- Investigating Human Performance,
- Safety Assessment of Aircraft Systems.

Safety and Human Factors in Aviation

www.cranfield.ac.uk/SHFA

Full-time

MSc, PgDip, PgCert

Accredited by the Chartered Institute of Ergonomics and Human Factors (CIEHF), this MSc will equip you with industry-relevant skills, delivered through a mix of lectures and practical exercises.

Compulsory modules

- Aviation Safety Management,
- Human Error and System Safety,
- Human-Computer Interaction in Aviation,
- Cognitive Ergonomics,
- Safety Assessment of Aircraft Systems,
- Applied Safety Assessment,

- Research Methods,
- Aircraft Accident Investigation and Response,
- Safety and Human Factors in Aviation Capstone Project.

Elective modules

- Human Factors in Aviation Maintenance,
- Training and Simulation.



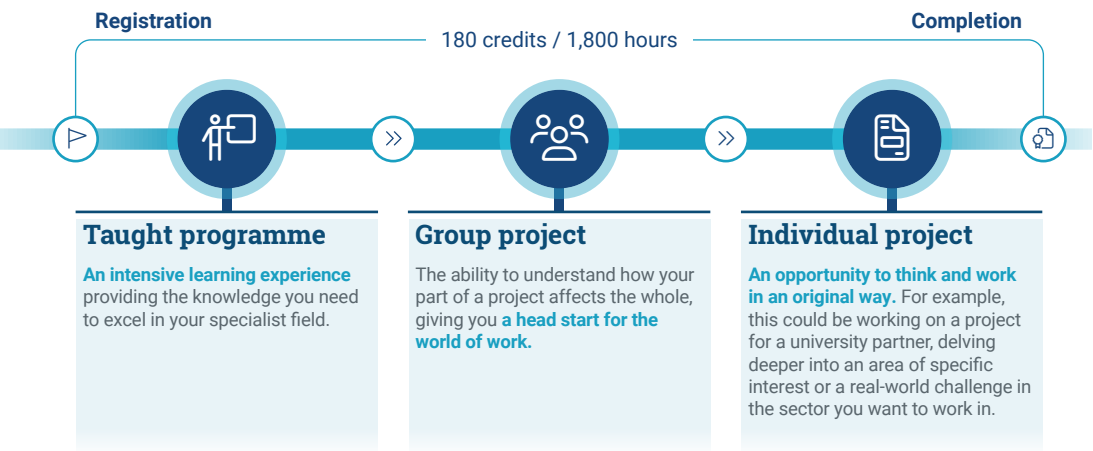
Accredited by:



Course structure

Our specialist, sector-focused master's courses are set up and developed in close collaboration with industry partners, ensuring the content of our courses remains industry-relevant and employers are impressed with our graduates' business-readiness.

This diagram illustrates the standard course structure for our master's programmes. Please check your course structure online for more detailed information.



Industry links

Cranfield has unrivalled links with industry, and you will benefit from our extensive contacts and track record of close collaboration with decision-makers in your chosen sector.

These benefits range from the various high-profile guest speakers we are able to attract, to the ability to network with future employers at our group presentation days and careers fairsheld on campus.



Industrial advisory panel

Our courses are reviewed each year by a panel of industry advisers from leading companies and institutions in the sector. This ensures that the skills you acquire are up-to-date and what employers want. Some of the companies represented on our safety and accident investigation courses industrial advisory panel include: Rolls-Royce, Airbus, Boeing, Bristow Helicopters, NATS, TUI and UK rail, air, marine and defence accident investigation branches.



Careers

Our alumni can be found around the world in leading roles. Here are a few examples of the roles our alumni have secured in recent years.

Read more on our website www.cranfield.ac.uk/careers

Roles:

- Airworthiness Inspector,
- Company Safety Investigators,
- Defence Safety Investigators,
- Flight Data Specialist,
- Healthcare Incident/Accident Investigators,
- Human Factors Specialist,
- Patient Safety and Risk Manager,
- Quality and Governance Lead,
- State Engineering/ Data Recorder/ Ops/ Safety Engineer/ Manager/ Regulator,
- Safety investigators in other safety-critical , industries such as construction, nuclear etc,
- Transport Inspectors (Air/Rail/Marine).

Sectors

- Aerospace,
- Air transport,
- Energy,
- Marine,
- Military,
- Rail,
- Transport safety.

Academic staff

You will be taught by a wide range of subject specialists at Cranfield and from industry, who draw on their research and industrial expertise to provide stimulating and relevant input to your learning experience.

The list of academics below represents a small proportion of our staff; we also have a large number of highly-experienced guest lecturers.



Dr David Barry,

Senior Lecturer Aviation Safety Management

www.cranfield.ac.uk/djbarry

David's entire career has been in aviation, specialising in operational safety and risk for over 20 years. He was a former safety manager at a UK airline for over 10 years.



Professor Graham Braithwaite,

Director of Aerospace and Aviation

www.cranfield.ac.uk/grbraithwaite

Graham is a Professor of Safety and Accident Investigation. He joined Cranfield in 2003 and established the world's first MSc programme for professional accident investigators.



Craig Cattell,

Senior Lecturer in Accident Investigation

www.cranfield.ac.uk/ccraig

Craig's career history has evolved from an Aircraft Engineer to Air Accident Investigator and finally multi-mode Accident Investigator within UK Defence.



Dr Gulsum Kubra Kaya,

Lecturer in Human Factors

www.cranfield.ac.uk/gkubrakaya

Gulsum's expertise lies in safety engineering methods, focusing on system safety, ergonomics, and risk assessment. She is a registered member of the Chartered Institute of Ergonomics and Human Factors Society (C.Erg.HF).

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"I am really enjoying the course content and this is exactly what I was hoping for when I joined the Aviation Safety Management, Risk and Regulation MSc. The assignment questions after each module are well-thought-out in my view, as they drive me towards a much better understanding of the module content, ensuring a high retention about the subject in my mind."

Raj De, current student, (Aviation Safety Management Risk and Regulation MSc)



Key facts and statistics

Course information



Full-time

One year.



Part-time

Two to three years. See the course page for more information about part-time study.



Start date

Various. Please visit course pages for more information.



Award

MSc/PgDip/PgCert.



Fees

Please see the individual course pages on our website for full fee information and full-time or part-time options. Terms and conditions apply. See www.cranfield.ac.uk/fees

Cohort profile*



Geographic spread

63% UK.
37% International.



Average cohort age

20–54.



Average cohort size

22 Airworthiness.
53 Aviation Safety Management,
Risk and Regulation.
78 Safety and Accident Investigation.
19 Safety and Human Factors.

*These figures give an indication of the course make-up at registration across our safety and accident investigation courses for the entry 2022-2023.



Useful information



Financing your studies

Whether you are a UK-based or international student, we provide information, advice and a range of online tools to help you put together the funding package you need. Take a look at our funding finder which provides a searchable database of sources of financial support. We also offer bursaries for high quality applicants. Visit our website where we provide a range of additional sources of potential funding and helpful organisations and contacts for information, advice and guidance.

Learn more at www.cranfield.ac.uk/funding

More than a degree with the **Cranfield Enhance programme**

Cranfield graduates are valued for their distinctive skills and capabilities. We have developed these programmes to complement and enhance what you learn on your chosen qualification. On the Cranfield Enhance programme, you will be able to earn 'digital badges' in areas such as employability and entrepreneurship to showcase your new skills to prospective employers.

Read more at www.cranfield.ac.uk/enhance

“

I chose to study this master's because it combines research with practice. My career aspiration after graduating is to work in the airline industry as a safety engineer and Cranfield University is helping me in achieving this goal by teaching skills that are applicable to the safety engineering field.”

Dragos Calin-Dobre, current student, (Safety and Human Factors in Aviation MSc)



Life at Cranfield

A welcoming, professional campus community.



Explore our University

You can personalise your virtual visit to our campus by choosing the subject area you are interested in on our interactive tool:

virtualexperience.cranfield.ac.uk



How to apply

Read more about our entry requirements and how to apply at **www.cranfield.ac.uk/apply**



Our location



Located just over an hour from London in the English countryside, Cranfield's campus environment supports close, working relationships between our multinational postgraduate students and academic and industry experts.

www.cranfield.ac.uk/visit



www.cranfield.ac.uk/sai

Our sector study areas:

Aerospace,
Defence and Security,
Energy and Sustainability,
Environment and Agrifood,

School of Management,
Manufacturing and Materials,
Transport Systems,
Water.



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blogs.cranfield.ac.uk

For a full list of Cranfield courses, please see our **prospectus** and website.

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