

Postgraduate master's courses in

# **Air Transport**

Airport Planning and Management MSc Air Transport Management MSc Air Transport Management (Executive) MSc Aviation Digital Technology Management MSc

# **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 170+ countries

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

### What our alumni say

"Coming from a purely technical background, my aim was to understand the commercial aspect of the industry and this course has opened up a whole new dimension of the industry. The beauty of the Air Transport Management MSc is that every new module taught talks about a different aspect of the industry. The highlight of this course would have to be the guest lectures delivered by industry specialists."

### Pavitira Sanker,

student, (Air Transport Management MSc)





# Reasons to study air transport with us

1 Unique facilities

The only UK university campus with a fully-operational airport, the National Flying Laboratory Centre and a retired Boeing B737-400 aircraft. The Digital Aviation Research and Technology Centre (DARTeC) develops cutting-edge research into the most pressing challenges the industry faces, including pathways towards sustainable aviation, digitalisation, passenger experience and integration into broader mobility models. This research informs our courses, ensuring their content is real-world relevant.

2 Employment and networking opportunities

You will benefit from our close links to industry and relationships with key players in aviation, and will have numerous opportunities to meet industry representatives throughout the course. Both students and alumni are provided with access to the exclusive Cranfield University Air Transport LinkedIn group, which offers unrivalled networking and job opportunities. You will also benefit from access to our comprehensive alumni services and benefits. Most of our students find employment by the end of the course.

3 Access to resources

You will have access to industry-leading resources for data, analytics and business intelligence; including the most relevant commercial databases for airline demand and capacity, networks and fleet; airport, airline and related organisations' profiles, news, operational and financial information; and proprietary reports from analysts, consultancies and industry associations.

4 External lecturers

We are particularly proud of the wide range of seminars and guest lectures given by global aviation industry leaders, such as the CEOs of British Airways, London Gatwick Airport, Birmingham International Airport, TUI Airways, Avianca Airlines and International Airlines Group, Chief Economist of the International Air Transport Association (IATA), and Boeing Senior Vice-President.

5 Relevant projects

You will have the opportunity to work in groups and individually on projects to devise solutions that tackle real-world industry challenges and develop the necessary teamwork and project management skills required in the aviation industry.

6 Strong industry links
Courses are informed by an industrial advisory committee comprising senior representatives from leading airports, international consultancies, academics, and associated sectors. Their input ensures that courses remain up-to-date and equip you

with the skills and knowledge required by leading employers.

# Courses

# For 60 years, Cranfield University has delivered world-leading postgraduate courses in air transport.

You will benefit from our close industry relationships through guest speakers sharing their knowledge and visits to airlines and major UK airports. Industrial partners such as easyJet, London City Airport and Qatar Airways recruit extensively from our courses.

More than 2,000 Cranfield alumni are in the air transport industry. By becoming one of our alumni, you are joining a professional global network.

Internationally recognised as a leading centre researching and teaching in air transport management, our work draws together airline and airport operations with management, economics, engineering and marketing. Our focus is global and includes the contemporary issues of sustainable aviation, digitalisation and technology developments. A particular strength is our breadth of expertise across all aspects of air transport management, which we share with you and our industry partners.

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

The compulsory and (where applicable) elective modules offered for the 2024-25 academic year are shown to give you an indication of the current course content. To keep our courses relevant and up-to-date, relevant and for practical purposes, modules may be subject to change from cohort to cohort; please check our website for the latest information.

### **Air Transport Management**

www.cranfield.ac.uk/atm Full-time MSc, PgDip, PgCert

This course is designed to equip you with the skills required to pursue a successful career in various sectors of the air transport industry, including airlines, airport companies and authorities, civil aviation departments, air transport consultancies and aerospace companies.

#### **Compulsory modules**

- · Air Transport Economics and Finance,
- Air Transport Operations.
- · Geopolitics and International Aviation Law,
- · Air Transport Environmental Planning,
- · Airline Strategic Management,
- Air Transport Market Analysis and Forecasting.

#### Elective modules (choose three)

- · Air Transport Marketing,
- · Airline Fleet Planning,
- · Airport Strategic Planning,
- · Aviation Safety Management,
- · Digital Aviation Management,
- · Regional Aviation.

### **Air Transport Management (Executive)**

www.cranfield.ac.uk/atmexec

Part-time

MSc, PgDip, PgCert, PgAward

This MSc is designed to help you develop the skills required to enhance your career within various sectors of the air transport industry, including airlines, airport companies and authorities, civil aviation departments, air transport consultancies and aerospace companies. Its part-time, flexible format covers a range of strategic management issues and enables you to focus on subjects that match your individual interests and career aspirations, whilst you remain in employment. The course develops your leadership skills and you are supported in your professional and personal development through coaching and mentoring

### **Airport Planning and Management**

www.cranfield.ac.uk/apm

**Full-time** 

MSc, PgDip, PgCert

This is a unique course created to equip you with skills in airport business development, strategic planning, design, operations and environmental management. This will empower you to pursue a career across various sectors in the entire air travel value chain.

#### **Compulsory modules**

- · Airport Design,
- · Airport Operations,
- · Airport Strategic Planning,
- · Airport Finance and Business Management,
- Geopolitics and International Aviation Law,
- · Air Transport Environmental Planning,
- Air Transport Market Analysis and Forecasting.

#### Elective modules (choose two)

- · Airline Strategic Management,
- · Air Transport Marketing,
- · Aviation Safety Management,
- · Digital Aviation Management,
- · Regional Aviation.

### **Aviation Digital Technology Management**

www.cranfield.ac.uk/adtm

Full-time, Part-time

MSc, PgDip, PgCert

This course develops professionals with the ability to innovate and apply digital technology in the aerospace industry. The course gives graduates from aeronautical and engineering backgrounds the digital skills and capabilities required to develop a career that goes beyond design and manufacture, and will open up wider aviation industry opportunities.

### **Compulsory modules**

- · Aviation Digitalisation,
- · Data-Centric Aircraft Systems,
- Predictive Maintenance Technology,
- · Aerospace Inspection and Monitoring Tools,
- Digital Aviation Operations and Maintenance Management.
- · Digital Aviation Supply Chain Management,
- Communications and Cybersecurity in Aviation

# 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.





### **Group projects**

Cranfield's group project experience provides you with the opportunity to take responsibility for a consultancy-type project while working under academic supervision. Group presentations are then attended by invited representatives from the air transport industry at the end of the project.

### Some recent projects include:

- · Developing a business plan for a new airline,
- Transforming the door to door passenger experience and integrating advanced air mobility into London Heathrow airport,
- Strategic outlook for land-use, passenger experience and decarbonisation of EuroAirport Basel-Mulhouse-Freiburg,
- Strategic plan for Exeter Airport 2030.

# 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 fairs held on campus.



# **Industrial advisory panel**

Our courses are reviewed each year by a panel of industry experts to ensure that students graduate from Cranfield with the appropriate knowledge and skills to become future leaders in the industry. Some of the companies represented on our industry advisory panel include ARUP, AtkinsRéalis, London Luton Airport and Mott MacDonald.



# Careers

Our alumni can be found around the world in leading roles within the air transport industry and beyond. Here are some examples of the roles our alumni have secured in recent years:

#### Roles:

- Air Cargo Specialist.
- · Airline Pricing Manager,
- Airport Consultant.
- · Airport Operations Officer,
- · Airport Planner,
- Corporate Airline Strategy Manager.
- · Head of Airport Services Planning,
- Network and Strategy Analyst,
- · Operations Controller.
- · ORAT Coordinator.
- Project Manager,
- · Route Analyst.
- · Senior Airport Planner,
- Senior Design Manager,
- Strategic Planning and Sustainability Specialist.

#### Companies:

- Airbus.
- Arup.
- AtkinsRéalis.
- · Aviation Economics.
- · British Airways.
- easyJet.
- Group ADP Aeroports de Paris,
- · Heathrow Airport,
- ICF International.
- · Jacobs Consultancy.
- Korean Airports Corporation,
- · Malaysian Airports,
- Manchester Airport Group,
- Mott Macdonald.
- · Qatar Airways.

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

# 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.



Professor Anna Smallwood, Head of Centre for Air Transport Management



**Dr Darren Ellis,**Course Director, Air Transport
Management

#### www.cranfield.ac.uk/amsmallwood

Anna is an experienced aviation professional, applying her background in airline management to leading the Centre for Air Transport Management, along with developing associated research activities at the unique Digital Aviation Research and Technology Centre (DARTeC) facility at Cranfield University. She brings significant practical experience in leadership and change management from within the European airline sector, as well as in risk, safety and crisis management.

#### www.cranfield.ac.uk/dellis

Darren has spent over 10 years in higher education research and teaching, and several years before that in the public service sector. His research has primarily investigated the future of the global airline industry and the ascendancy of the three major Gulf carriers. He specialises in the geopolitics of aviation.



**Dr Ip-Shing Fan,**Course Director, Aviation Digital Technology Management



**Dr Edgar Jimenez Perez,**Course Director, Airport
Planning and Management

#### www.cranfield.ac.uk/isfan

lp-Shing Fan is a Senior Lecturer in Enterprise Systems, leading digital maintenance, repair and operations (MRO) in DARTeC, supporting aviation transformation in operations and maintenance. He leads the digital MRO and hangar laboratories in DARTeC.

#### www.cranfield.ac.uk/ejimenez

Edgar has experience in the design of public policy for transport systems and sustainability, as well as over 10 years' experience in university lecturing and research in transport systems and higher education. His research interests cover the topics of strategic airport planning, airport competition, urban mobility and integration and sustainability in transport systems.

# **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

Full-time: September.
Part-time (Exec):
March/June/November.



#### **Award**

MSc/PgDip/PgCert/PgA.



#### **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**

10% UK. 90% International.



### Average cohort age

20-29.



### Average cohort size

- 48 Air Transport Management.
- 20 Airport Planning and Management.
- 16 Air Transport Management (Executive).
- 7 Aviation Digital Technology Management.

\*These figures give an indication of the course make-up at registration across our safety and accident investigation courses for the entry 2023-2024.



"My decision to attend Cranfield University was driven by its unparalleled reputation in aerospace and air transport. Cranfield stood out as a beacon of specialised knowledge, industry connections, and offered a curriculum that perfectly aligned with my aspirations to delve deeper into the technical and managerial aspects of air transport. The university's focus on innovation and its global network of alumni and industry leaders presented an irresistible opportunity for both personal and professional growth."

Charlene Umubyeyi,

current student, (Air Transport Management MSc)



# 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



# Life at Cranfield

A welcoming, professional campus community.





# 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/transportsystems

#### 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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