AMS

Air Transport

Learn how to address challenges and changes in air transport

'This course gives a comprehensive overview of the relevant aspects of airport management, supported by prominent guest speakers from the sector.'
– Immle De Staercke, Attaché at Belgium Customs

Antwerp Management School
Powered by C-MAT

Introduction

C-MAT is the Centre for Maritime & Air Transport Management of the University of Antwerp. It is one of the world's premier suppliers of highly specialised academic as well as practice-based education and research in transport economics. C-MAT consists of three programs: Research Fundamentals, Maritime Transport and Air Transport.

This program, Air Transport, is designed to support (international) professionals in air transport-related matters with a background in economics or management by addressing the many challenges and rapid changes the industry is facing. It consists of three separate courses:

- The course **Air Transport Economics & Business** will provide participants with a sound knowledge and understanding of key economic management and regulatory issues affecting the air transport industry.
- The course **Airport Management** gives insights into the key issues of airport management, zooming in on the role of different actors and discussing aspects influencing the demand, supply, equilibrium, and competitiveness of airports.
- Finally, the course **Air Transport Pricing Strategies** reviews pricing as a key strategic tool in air transport and discusses both traditional and innovative pricing systems in relation to spill rates, rate reduction and restrictions, dynamic slot allocation, etc.

The course provides a truly unique international experience and engages participants with interactive teaching and evaluation methods. All courses include guest lectures from high-level industry professionals as well as renowned academics in the field of air transport. Through excursions and company visits participants will also get the opportunity to deepen their practical knowledge.

Curriculum

Air Transport consists of 3 courses.
You can register for each course separately.

Course 1
Air Transport Economics & Business

C-MAT
Air Transport

Course 2
Airport Management

Course 3
Air Transport Pricing Strategies

Course 1

Air Transport Economics & Business

The air transport industry is changing rapidly. Therefore, it is important to have economic instruments at hand that give you an insight into the strategic decisions of the key industry actors. Each strategic move of an individual airline has immediate and substantial consequences for the rest of the air transport chain and impacts the competitive relations within the industry. This course on Air Transport Economics & Business is developed to provide a sound knowledge and understanding of key economic and regulatory issues affecting the air transport industry. The course includes guest lectures from high-level industry professionals as well as renowned academics in the field of air transport economics. Furthermore, participants will have the opportunity to deepen their practical knowledge through a number of excursions (e.g. DHL, Brussels Airport, Tuifly).

Course 1

Air Transport Economics & Business

Course content

This course consists of interactive lectures, including but not limited to the following topics:

- → Liberalization and public policy
- → Air transport demand: theory and applications
- → Air transport supply and costs: theory and applications
- → Productivity and efficiency of airlines
- → Airline business models
- → Competitive strategies of airlines
- → Airline network development
- → Air cargo economics
- → Strategies of air cargo carriers
- → Environmental issues
- → Airline finance
- → Airline fleet and capacity planning
- → Air traffic control
- → Airline marketing
- → Economic impact of aviation
- → Transformation in European aviation and the impact of Middle Eastern carriers

Learning outcomes

After this course, you will:

- → understand the role, business economic functioning and competitive strategies of all actors in the aviation value chain;
- → understand the relationships between the different actors in the aviation value chain;
- → understand the impact of public policy and regulatory issues that shape the air transport industry;
- → understand the economic and financial concepts relevant to the air transport industry;
- → understand the commercial pressures faced by airline managers;
- → be able to carry out independent research about a problem or topic affecting the current air transport industry.

This module, through its high-level scientific content, will be assigned 6 ECTS credits upon successful completion of the exam and related assignments.

Course 1

Port Economics & Business

Course schedule	Topic
Thursday 17 February	
09:00-10:30	→ Introduction
10:30-12:00	→ Setting the scene – Air Transport Demand & Supply
13:30-15:00	→ Air Transport Demand: theory
15:00-16:30	→ Project work – Setting up an airline
Friday 18 February	
09:00-10:30	→ Airline business models and strategies
10:30-12:00	→ The role of the CAA in the air transport industry
13:30-15:00	→ The role of ground handling in the air transport value chain
15:00-16:30	→ Project work – Business model
Monday 21 February	
09:00-10:30	→ Network Management
10:30-12:00	→ Project work – Create a route network schedule
13:30-15:00	→ Finance and Fleet Management
15:00-16:30	→ Application business models – working session
Tuesday 22 February	
09:00-10:30	→ Rethinking airline organizations: What if we start from scratch?
10:30-12:00	→ Air Cargo Economics
13:30-15:00	→ Airline Finance – P&L
15:00-16:30	→ Airport leasing
Friday 25 February	
09:00-12:00	→ Project work - The airline's fleet composition
13:30-16:30	→ Site visit – Brussels Airport + DHL hub
Monday 28 February	
09:00-10:30	→ Airline Finance – Productivity and efficiency of airlines – KPIs
10:30-12:00	→ Airline Revenue Management
13:30-15:00	→ Air Cargo Revenue Management
15:00-16:30	→ Project work – Develop a route revenue model

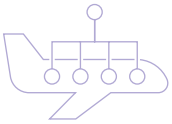
Course 1

Air Transport Economics & Business

Course schedule	Topic
Tuesday 1 March	
09:00-10:30	→ Air Traffic Management
10:30-12:00	→ Airline Marketing
13:30-15:00	→ Sustainability and disruptions in the industry
15:00-16:30	→ Project work – Make a business plan
Wednesday 2 March	
09:00-10:30	→ Case study: American Airlines in 2011
10:30-12:00	→ Case study: Ryanair Flying too close to the sun
13:30-15:00	→ Case study: Emirates, connecting the Unconnected?
15:00-16:30	→ Project work – Case study Etihad for next day
Thursday 3 March	
09:00-12:00	→ Case study: Etihad's former and revised Alliances Strategy, do they get it right now?
13:30-16:30	→ Project work – Clinic and wrap up
Friday 4 March	
09:00-12:00	→ Site visit – TUIfly
13:30-16:30	→ Presentation Airline Business Plan (oral exam)
Friday 11 March	
09:00-12:00	→ Written exam

Course 2

Airport Management



In the air transport chain, airports are crucial transfer points for both passengers and cargo. This course will provide participants with insights into the key issues of airport management. Different elements influencing the demand, supply, equilibrium, and competitiveness of airports will be discussed. Furthermore, the role of different actors in the airport management process will be addressed. This course includes guest lectures from experienced industry professionals as well as well-known professors in the field of airport management. Participants will also have the opportunity to deepen their practical knowledge through a number of excursions.

Course content

This course consists of lectures, including questions and discussion, on the following topics:

Airports: context, structure, and functional processes

- → Historical overview and types of airports
- → Air traffic, capacity and delay
- → Airports as nodes of the airspace network
- → International organizations binding airport operations
- → Relation airports-airlines and other stakeholders

Airport planning

- → Airport master plans and airport layout plans
- → Law, regulations, industry and public relations
- → Environmental sustainability
- → Safety and security
- → Airport business models and business plans
- → Pricing policies: fees, rates, charges
- → Airport marketing
- → Demand management and slot allocation
- → Airport operations and maintenance
- → Airport budgeting overview

Strategic development and expansion plans

- → Using forecast and backcast techniques for strategic development
- → Airport configurations and innovative revenue-generating techniques
- → Key issues in funding airport development
- → Private equity in airport development
- → Economic impacts of airports
- → Impacts of airline economic and financial downturns in airports
- → Dynamic strategic planning: flexible expansion of airports and other techniques
- → Multiairport systems: advantages and difficulties

Learning outcomes

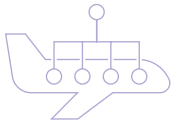
After this course, you will be:

- → familiar with the different facets of airport management;
- → aware of the different actors playing a part in airport management and their underlying relationships;
- → able to analyze and solve specific problems of airport management;
- → able to prepare, carry out and follow up policy related advices concerning the broader area of airport management;
- → able to critically assess the management of an airport;
- → able to critically assess your own research results or solutions to complex cases concerning airport management;
- → able to comprehensively present and report your results in good English, adapted to the target audience.

This module, through its high-level scientific content, will be assigned 6 ECTS credits upon successful completion of the exam and related assignments.

Course 2

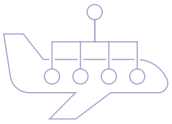
Airport Management



Course schedule	Topic
Monday 17 January	
9:30-10:30	→ Opening and course introduction - Historical overview and types of airports
11.00-12.30	→ Keynote 1: Guest speaker - Challenges in Airport regulation
13:30-15:00	→ Key practice 1: Guest speaker – to be announced
Tuesday 18 January	
09.00-10.30	→ Air Traffic, Capacity and Delay – Airports as nodes of the airspace network
11.00-12.30	→ Air Traffic, Capacity and Delay – Airports as nodes of the airspace network + International Organizations binding airports operations
13:30-17:00	→ Discussion papers
Wednesday 19 January	
09.00-10.30	→ Airport Master Plans and Airport Layout Plans
11.00-12.30	→ Airport Operations and Maintenance
13:30-15:00	→ Environmental sustainability
15:30-17:00	→ Discussion papers
Thursday 20 January	
09.00-10.30	→ Airports Business Models and Business Plans: success factors
11.00-12.30	→ Diversity in Business Models
13:30-15:00	→ Discussion of airports business models
Friday 21 January	
9:00-10:30	→ Law, Regulations, Industry and Public Relations: the case of Air Traffic Control
11:00-12:30	→ Discussion papers
13:30-15:00	→ Guest lecture: Safety and Security - the use of cybernetics

Course 2

Airport Management



Course schedule	Topic
Monday 24 January	
09.00-10.30	→ Airport Marketing
11.00-12.30	→ Airport configurations and Innovative revenue-generating techniques
13:30-15:00	→ Relations Airports Airlines and other stakeholders: Success factors in Freight Markets
Tuesday 25 January	
09.00-10.30	→ Demand Management and slot allocation
11.00-12.30	→ Airport Budgeting overview + Key issues in funding airport development
14.00-15.30	→ Private equity and ownership in airport development
Wednesday 26 January	
09.00-10.30	→ Economic impacts of airports
11.00-12.30	→ Multiairport systems: advantages and difficulties
13:30-15:00	→ Main political topics for European Airlines – “a focus on the relationship with airports”
Thursday 27 January	
09.00-10.30	→ Air Traffic Control tools and technology
11.00-12.30	→ Ground Handling Services
13:30-15:00	→ GUEST AIRPORT: Dynamic strategic planning, which challenges for a flexible expansion
15:30-17:00	→ The airport systemic view
Friday 28 January	
9.00-10.30	→ Integrated Airport Operations - SESAR
11.00-12.30	→ Preparation for exam and discussion of practical cases
13:30-15:00	→ Individual exam with open book

Course 3

Air Transport Pricing Strategies

The air transport industry is often seen as a laboratory for the design and implementation of new pricing mechanisms. This course zooms in on pricing as a key strategic tool in air transport and considers in detail the various aspects of its theoretical underpinning. Both traditional and innovative pricing systems will be discussed in relation to spill rates, rate reduction, rate restrictions, dynamic slot allocation, multiple discount classes, and route assignment. The scope of this course goes beyond airlines to the pricing strategies of other players in the air transport industry.

Course content

This course consists of interactive lectures, including but not limited to the following topics:

Introduction and context

- → Development of the airline industry since 1978. A strategic overview on stakeholders and the role of pricing
- → Pricing strategies in the new business models. Choices, risk and alliances for the incumbents
- → Pricing as a resilience instrument

Basic concepts on pricing

- → Challenges and approaches to pricing
- → Price and revenue optimization
- → Tactics for price differentiation and consumer welfare
- → Pricing with constrained supply
- → Non-uniform pricing strategies
- → Pricing under public service obligations

Pricing strategies

- → Economic and financial impact of pricing strategies
- → Revenue management strategies
- → Capacity allocation with multiple fare classes
- → Network pricing
- → Overbooking
- → Markdown management

Applications with critical review of case studies

- → Low cost vs conventional carriers: London-Paris market
- → Airport slots trading: experiences from the UK and USA
- → Price implications in EU's air navigation service providers changing process (SESAR)
- → Low cost carriers vs regular airlines under public service obligations: the case of liberalization of Azores

Game on pricing decisions

- → Each participant (groups 2-3) will play the role of one stakeholder and will be faced with given scenarios, calling for decisions
- → The game will be adjusted to the dimension of the class

Course 3

Air Transport Pricing Strategies

Learning outcomes

After this course, you will be able to understand key concepts on:

- → the scope of economic and financial effects produced by pricing;
- → the scope of price and revenue optimization;
- → the role of pricing in business development strategies;
- → strategic diversification related to capacity allocation, overbooking, markdown, etc.;
- → non-uniform pricing;
- → pricing with supply constraints;
- → pricing under public service obligations constraints;
- → pricing for policy analysis.

You will be provided with the technical skills to:

- → apply these concepts to the relations between the main stakeholders of air transport: airlines, airports, air navigation service providers and ground handlers;
- → decide on pricing strategies in face of changing scenarios;
- → negotiate in the implementation of pricing strategies.

This module, through its high-level scientific content, will be assigned 6 ECTS credits upon successful completion of the exam and / or related assignments.

Course 3

Air Transport Pricing Strategies

Course schedule	Topic
Monday 14 March	
9:30-10:30	→ Introduction to the course
11:00-12:30	→ What can we learn from the neighbour? The structure of port pricing and lessons for the air transport sector
13:00-14:30	→ Development of the Airline Industry since 1978. A strategic overview on stakeholders and the role of pricing
15:00-16:30	→ Preparation of topics for discussion sessions
Tuesday 15 March	
09:00-10:30	→ Airline global alliance and pricing strategies. What is the role of regulation?
11:00-12:30	→ Development of airline pricing strategies: evolution of airfare structure
13:00-14:30	→ Airlines' fuel hedging strategies
Wednesday 16 March	
9:00-10:30	→ Fuel costs, surcharges, and hedging
11:00-14:30	→ CASE STUDY #1
15:00-16:30	→ Price and revenue optimization – pricing as a resilience instrument
Thursday 17 March	
09:30-10:30	→ GAME STARTS – Each student plays the role of one stakeholder and will be faced with given scenarios, calling for decisions.
11:00-12:30	→ Pricing strategies in the new business models – Choices, risk and alliances for incumbents
13:00-14:30	→ Tactics for Price Differentiation and consumer welfare. Challenges and approaches to pricing: airlines, airports, ground handling
15:00-16:30	→ Resilient Revenue Management – Discussion session #1
Friday 18 March	
09:30-10:30	→ Tactics for Price Differentiation and consumer welfare – discussion papers
11:00-12:30	→ Pricing with constrained supply and Non- Uniform pricing strategies
13:00-14:30	→ Online pricing

Course 3

Air Transport Pricing Strategies

Course schedule	Topic
Monday 21 March	
09:30-10:30	→ Pricing under public service obligations – discussion session #2
11:00-14:30	→ Autonomous preparation of GAME, working in groups of 2 students
15:00-16:30	→ Guest lecturer: Alternative mechanisms for Slot Pricing
Tuesday 22 March	
09:30-10:30	→ Price implications in EU's Air Service Navigation providers changing process (SESAR)
11:00-12:30	→ ANSP pricing – Discussion session #3
13:00-16:30	→ CASE STUDY #2
Wednesday 23 March	
09:30-10:30	→ Comparing pricing strategies in different business models (students work)
11:00-14:30	→ GAME Final Evaluation (with jury)
15:00-16:30	→ Students prepare final delivery of the game, incorporating comments received during evaluation session
Thursday 24 March	
09.30-10.30	→ Overbooking - Discussion
11.00-12.30	→ Looking to the future of air travel – Discussion session #4
Friday 25 March	
09.00-10.30	→ Individual written exam
11.00-12.30	→ Students deliver game final report

Participant profile

The course will prepare the participants for today's challenges facing the air transport industry. The course is designed with an international audience in mind and aims at individuals with a background in economics or management focusing on air transport-related matters.

This course is highly interesting and designed for:

- → young potentials working in the air transport industry, for government or regulatory agencies or in aviation consultancy;
- → employees with a few years of experience who wish to broaden their understanding of the industry and to get up-to-date on recent industry developments;
- → people working in related fields such as finance, aircraft manufacturing, economic development or tourism, who deal with air transport related issues.

Targeted professionals are among others airport, airlines & ground handling company managers, air traffic control managers, public administration, economical and technical regulators, government at regional, national and EU levels, as well as investors in the air transport industry.

7 reasons to study at C-MAT

01

A strong MSc program that links academic research to contemporary industry know-how and practice.

02

A truly unique international experience and student group.

03

Strong ties with the Belgian and international port and air transport sector.

04

Excursions, company visits, guest lectures, interactive teaching, and evaluation methods.

05

Specialization courses of one or two weeks designed to address current industry challenges and academic research questions. These courses are also open to industry representatives and other interested parties.

06

Trend-setting events, conferences, and research.

07

Strong alliances with excellent universities, leading international enterprises, and various public organizations.

Faculty

Rosário Macário - Module 1: Airport Management and module 3: Air Transport Pricing Strategies

Rosário Macário is a professor and researcher in Transportation at the Department of Civil Engineering, Architecture and Georesources at Instituto Superior Técnico (IST) Universidade de Lisboa (www.ist.eu). She is also a part-time professor at the University of Antwerp, Department of Transport and Regional Economics (Belgium).
She has extensive experience in transport policy & practice. Before her academic career, she worked for 20 years in the airline and airport business as Flight Operations Officer.

Wouter Dewulf - Module 2: Air Transport Economics & Business

Prof. Dr. Wouter Dewulf graduated as a Master in Applied Economics (1992) and Master in Business Engineering (1993) at the University of Antwerp. After studying “Maitrise d'Administration et Gestion” (IAG) at the Université Catholique de Louvain, he worked at British Airways in London, Sabena Technics in Belgium and Van Gansewinkel in Belgium, France and Luxemburg. As an "early midlife crisis", and after an inspirational meeting with Prof. Van de Voorde, he started a PhD in 2007 and graduated in 2014 as a doctor in Applied Economics at the University of Antwerp. He is a professor at the University of Antwerp and C-MAT (Belgium) and is academic director of C-MAT. He is currently course coordinator for the courses Air Transport Economics & Business and Project Methodology. In addition, he teaches the course Air Transport, jointly with Prof. dr. Eddy Van de Voorde. In addition, Wouter teaches the course Air Transport at the Faculty of Business and Economics of the University of Antwerp.

His main areas of research are air cargo, air transport strategy, E-commerce and urban logistics. He is a visiting professor at the University of Hasselt (Belgium), University of Chongqing (China) and Trisakti Institute of Transportation and Logistics (Jakarta, Indonesia). His PhD dealt with the strategy of air cargo carriers.

Practical info

Schedule

All classes take place from 9 am to 5 pm.
Sign up for one, two or three courses.

- **Airport Management**
  January 17 – 28, 2022 (10 days – 6 credits)

- **Air Transport Economics & Business**
  February 17 - March 4, 2022 (10 days – 6 credits)

- **Air Transport Pricing Strategies**
  March 14 – 25, 2022 (10 days – 6 credits)

Location

Decide for yourself whether you follow the course on campus, or stream live from a location of your choice.

Campus:
Antwerp Management School
Boogkeers 5
2000 Antwerp
Belgium

Live Stream:
Via Microsoft Teams

Fees

Per course (excl. VAT):

- On campus: € 3.760
- Live stream via Microsoft Teams: € 2.990 (excl. excursions)

SME conditions: You can receive 20 to 30% subsidy from the 'KMO portefeuille' of the Flemish Government. A similar subsidy is available for SMEs that are located in Brussels.
Participants from public and social profit organizations can ask for financial aid under certain conditions.

Certificate

You will obtain the certificate "C-MAT Air Transport" after successfully participating in the evaluation. The certificate mentions the ECTS credits you obtained, i.e. 6 credits per module of 2 weeks.

Admission

Deadline
The registrations will close as soon as the maximum number of participants has been reached. We advise you to start the noncommittal application process as soon as possible.
Procedure
Step 1
Start your registration by filling in the registration form. Please note that you must sign up first if you don't have a login yet.
Step 2
You will receive a confirmation email.
Step 3
We may contact you for a first introduction and to fine-tune your expectations about the program.

All information, rates and dates in this brochure are subject to change.

Contact

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More info:
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