Specialisation programme TAAM

Transformative Airlines & Airport Management

Course catalogue 2026-2027

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CREATING MEANINGFUL EXPERIENCES

Breda University OF APPLIED SCIENCES

Introduction

Aviation is at a turning point. The industry that connects the world is itself being fundamentally reimagined — under pressure to decarbonise, digitalise, and serve increasingly diverse global communities. The professionals who will lead this transformation need more than expertise in a single discipline. They need to see the whole system.

That is exactly what the Transformative Airport & Aviation Management (TAAM) specialisation is built for.

Developed by Breda University of Applied Sciences (BUas) in close collaboration with industry partners, TAAM brings together three disciplines that have traditionally operated in silos — logistics, facility management, and tourism — into one integrated programme. This reflects how aviation actually works: airports are simultaneously logistics hubs, managed facilities, and gateways to the world's destinations. Future leaders must be equally at home across all three.

This course catalogue outlines the programme for Academic Year 2026–2027 and forms part of the Teaching & Examination Regulations (TER) of the Bachelor programmes in Logistics, Facility Management, and Tourism Management at BUas. It describes the structure, modules, learning outcomes, and assessments that make up the TAAM specialisation.

We are proud to offer a programme that challenges you to think strategically, act sustainably, and lead with confidence in one of the world's most dynamic industries. The transformation of aviation needs people like you — and this programme is designed to prepare you for exactly that role.

On behalf of the team,

Erik D. van Diffelen, TAAM Programme Coordinator

1. Transformative Airlines & Airport Management

Programme Profile

The profile and structure of the TAAM specialisation programme is based on international aviation industry trends and developments studied and discussed with industry experts, as well as labour market developments in aviation, logistics, facility management, and tourism sectors. **Three main perspectives** were identified as critical for future aviation leaders and were used to design the programme:

1. Transforming Aviation in a Sustainable Global Environment

Aviation faces unprecedented transformation imperatives. The industry must achieve net-zero carbon emissions by 2050 while managing capacity constraints, community relations, and evolving customer expectations. Markets are changing rapidly in a dynamic and disruptive global environment, requiring aviation organizations to fundamentally adapt their operations, business models, and strategies.

Developments in areas such as **Sustainable Aviation Fuels (SAF)**, **electrification**, **digitalization** (artificial intelligence, biometrics, automation, data analytics), **circular economy**, and **multi-modal integration** add to the complexity while creating opportunities to organize aviation more sustainably and efficiently.
Simultaneously, aviation serves as the logistics backbone for global tourism, requiring integration between aviation operations and destination management that has historically been fragmented.
To seize transformation opportunities and cope with increasing complexity, young professionals need education as **aviation leaders of the future** who can navigate across logistics, facility management, and tourism simultaneously. Students will develop knowledge and skills in the fields of **sustainable transformation**, **digital innovation**, **supply chain optimisation**, **facility management excellence**, and **integrated tourism-aviation systems**.

2. Future Aviation Leaders in Multi-Disciplinary Environment

Future aviation leaders require more than specialist knowledge in a single domain. They need **integrated understanding** of how logistics, facilities, and tourism interconnect within aviation ecosystems, combined with social skills in **leadership**, **stakeholder collaboration**, **cross-cultural competence**, and **change management**.
Future leaders are therefore both **generalists and specialists**, as well as **bridge builders** between strategic, tactical, and operational levels within and across organizations (airlines, airports, logistics providers, tourism organisations, regulators, communities). They are able to optimize current aviation operations while simultaneously driving continuous improvement and transformation. They understand that passengers are both logistics challenges (flow, efficiency, capacity) AND tourism customers (experience, satisfaction, destination choice) AND facility users (terminal spaces, services, amenities).
In addition to acquiring specific analytical knowledge and skills in aviation operations, logistics, facility management, tourism, business intelligence, and research methods, students will develop social skills related to leadership and change. Students explore theories which they apply in practice through **industry partnerships**, develop social skills alongside technical subject matter knowledge, and use qualitative and quantitative research methods in authentic aviation contexts.

Students who complete the TAAM specialisation successfully are expected to take up positions at **airports**, **airlines**, **logistics companies**, **tourism organisations**, **facility management firms**, or **aviation consultancies**, where they may move on to leading or managerial positions within five years.

3. Innovative Capabilities in Multi-Disciplinary Teams

Beyond professional expertise and necessary quantitative and conceptual knowledge, aviation leaders distinguish themselves by competencies such as **leadership**, **innovative capacity**, and **multi-stakeholder coordination**. They possess the ability to implement aviation transformation concepts and improvement processes by working effectively in **multi-disciplinary teams** spanning logistics, facility management, tourism, technology, and sustainability domains.

This aligns with increasing demand for university of applied sciences professionals who bridge the gap between **academic insights and professional practice** in aviation. They develop the right mix of social and analytical knowledge and skills in **leadership**, **change management**, **sustainability thinking**, **digital transformation**, and **evidence-based decision-making**.

These knowledge and skills drive **aviation innovation** and **data-driven decision-making** essential for industry transformation. Students apply them by developing strategic improvement and implementation plans for real aviation organisations during their **20-week professional internship** and **capstone sustainability project**.

Competencies (Learning Outcomes Programme Level)

Upon successful completion of TAAM, graduates will be able to:

1. Strategic Analysis and Planning

Conduct comprehensive strategic analysis of aviation organizations using established frameworks (PESTEL, Porter's Five Forces, VRIO, SWOT) and develop evidence-based strategic plans addressing market opportunities, competitive positioning, and transformation challenges.

2. Supply Chain and Logistics Management

Analyse and optimise complex aviation supply chains spanning airlines, airports, ground handlers, and tourism destinations, identifying improvement opportunities in information, physical, and financial flows while integrating sustainability and technology considerations.

3. Facility Management and Commercial Operations

Propose facility strategies aligned with core aviation business objectives, evaluate commercial implications of facility decisions, and apply digital solutions to enhance facility efficiency and productivity in airport and aviation contexts.

4. Sustainable Aviation Leadership

Integrate sustainability thinking throughout aviation decision-making, assess environmental and social impacts, design circular economy solutions, and lead organisations toward carbon-neutral operations while maintaining economic viability.

5. Customer Experience and Tourism Integration

Design exceptional passenger experiences across complete travel journeys, integrate aviation operations with destination tourism systems, and optimize multi-modal connectivity balancing efficiency with sustainability.

6. Multi-Stakeholder Coordination

Navigate complex stakeholder environments coordinating airlines, airports, government authorities, tourism organisations, communities, and passengers with conflicting interests toward shared objectives.

7. Digital Transformation and Innovation

Apply digital technologies and emerging innovations to enhance aviation operations, customer experiences, and business models while leading organisational change and technology adoption.

8. Research and Evidence-Based Practice

Conduct rigorous research on aviation-tourism challenges using appropriate methodologies, critically evaluate evidence, and apply findings to practical decision-making in international, sustainability, and technology contexts.

9. Professional Communication and Collaboration

Communicate strategic insights effectively through professional reports, presentations, and digital media; collaborate productively in multi-disciplinary teams; and build professional networks in aviation industry.

10. International and Cross-Cultural Competence

Analyse aviation challenges across macro, meso, and micro environmental levels; adapt strategies to diverse international contexts; and work effectively across cultural and organisational boundaries.

2. Programme overview of TAAM

Curriculum design and set-up

Academic Year 2026-2027 (September 2026 - June 2027)
Year 2 establishes comprehensive foundation across aviation operations, business models, logistics systems, facility management, tourism integration, and strategic planning.

Block 2A: Foundation & Operations (15 ECTS)
Duration: 9 weeks (September - November 2026)
Modules:

1. 2A-1: Aviation Fundamentals (5 ECTS)
2. 2A-2: Airport Operations & Logistics (5 ECTS)
3. 2A-3: Facility Management & Infrastructure (5 ECTS)

Learning Focus: Understanding how aviation ecosystem functions operationally, from airline business models and airport operations to facility management and tourism gateway roles.
Assessment Week: Week 9

Block 2B: Business & Experience (15 ECTS)
Duration: 9 weeks (November 2026 - February 2027)
Modules:

4. 2B-1: Aviation Economics, Legal & Finance (5 ECTS)
5. 2B-2: Passenger Experience & Customer Journey Design (5 ECTS)
6. 2B-3: Research Methods & Professional Skills (5 ECTS)

Learning Focus: Understanding aviation business models, financial management, legal frameworks, customer experience design, and developing research capabilities for internship and career.
Assessment Week: Week 9

Block 2C: Strategy, Supply Chain &Facility Excellence (15 ECTS)
Duration: 9 weeks (February - April 2027)
Modules:

7. 2C-1: Strategic Planning & Business Development (5 ECTS)
8. 2C-2: Destination Supply Chain & Logistics (5 ECTS)
9. 2C-3: Facility Management Excellence (5 ECTS)

Learning Focus: From understanding to improving: students develop strategic planning, supply chain, and advanced facility management skills — with sustainability and innovation integrated throughout."
Assessment Week: Week 9

Block 2D: Aviation Management, Innovation & Transformation (15 ECTS)
Duration: 9 weeks (April - June 2027)
Modules:

10. 2D-1: Advanced Airline & Aviation Management (5 ECTS)
11. 2D-2: Innovation Management & Digital Transformation (5 ECTS)
12. 2D-3: Transformative Airline Simulation Project (5 ECTS)

Learning Focus: Everything learned will be applied into a real transformation challenge with an industry partner, combining strategic leadership, digital innovation, and simulation-based decision-making.
Assessment Week: Weeks 8-9 (Project presentations and portfolio submissions)

Academic Year 2027-2028 (September 2027 - June 2028)
Year 3 combines extended professional internship experience with specialisation deepening and capstone project demonstrating comprehensive competency integration.

Blocks 3A-3B: Professional Internship (30 ECTS) – Under the responsibility of your own Academie
Duration: 20 weeks (September 2027 - January 2028)
Format:

A. Full-time professional placement (minimum 600 hours)
B. Student's home faculty responsibility (LG, FM, or TM faculty supervision)
C. Internship project addressing real organizational challenge
D. Regular reflection and learning documentation

Block 3C: Transformation & Destination Innovation (15 ECTS)
Duration: 9 weeks (February - April 2028)
Modules:

13. 3C-1: Digital Transformation & AI in Aviation (5 ECTS)
14. 3C-2: Sustainable Aviation & Tourism Management (5 ECTS)
15. 3C-3: Strategic Management & Destination Leadership (5 ECTS)

Learning Focus: Digital innovation strategies, sustainability transformation leadership, destination management, and applying internship learning to advanced strategic challenges.
Assessment Week: Week 9

Block 3D: Global Integration & Specialization (15 ECTS)
Duration: 9 weeks (April - June 2028)
Modules:

16. 3D-1: Cross-Cultural & Global Tourism Management (5 ECTS)
17. 3D-2: Integrated Project Management (5 ECTS)
18. 3D-3: Transformative Sustainability Project (5 ECTS)

Learning Focus: Global aviation-tourism leadership, comprehensive project management, and capstone sustainability project integrating all programme learning with Senior Researcher supervision.
Assessment: Continuous assessment through projects and portfolios
Final Assessment Week: Week 9 (Programme completion)

Use of artificial intelligence (AI) by students

This TAAM programme has implemented its AI policies for the programme as a whole and for each individual module in accordance with the BUas Student AI Guidelines. These guidelines outline how content generated by large language models can be used for educational purposes. It provides the freedom to ban the use of AI completely, or allow everything, provided that students are transparent and correctly reference and quote in accordance with BUas guidelines. BUas uses five AI levels based on AIAS (AI in Scale Assessment). Decision-making and responsibility for setting the appropriate AI level for each module lies with the lecturers concerned. It is important to align and review proposed choices within a wider team context to learn from each other's experiences. This helps to avoid possible contradictory outcomes and confusion for students. It has been determined for all modules to what level the use of AI is allowed and why. This information will be communicated to students in the student manuals per module. The TAAM team applies a dedicated policy within the BUas framework in terms of generating content by large language models. An appeal is made to students' ethics. Students are expected to critically analyse information and assess its relevance, validity and reliability for themselves. Students then synthesise and consolidate the information, reporting on their findings in a professional manner. These activities are part of the students' learning process. During the programme, students write papers and conduct research for their assessments using proven methods. Although content generation by large language models can be quite impressive, it may also contain unreliable information.
The use of AI is mostly permitted during the brainstorming, planning and pre-research phases, after which the final submission should be free from AI (AI level 2). Students are also permitted to improve the quality of their writing, using Word features or tools such as DeepL, but these cannot be used to translate large amounts of text (level 3). Students are not permitted to enter company-specific input as a prompt into an AI tool, as this may result in confidentiality issues with companies. Also no AI is allowed by exams.

3. The module descriptions

The order of appearance of the module descriptions (All are 5 ECTS Credits) in this course catalogue is as follows:

1. Aviation Fundamentals
2. Airport Operations & Logistics
3. Facility Management & Infrastructure
4. Aviation Economics, Legal & Finance
5. Passenger Experience & Customer Journey Design
6. Research Methods & Professional Skills
7. Strategic Planning & Business Development
8. Destination Supply Chain & Logistics
9. Facility Management Excellence
10. Advanced Airline & Aviation Management
11. Innovation Management & Digital Transformation
12. Transformative Airline Simulation Project

BXE2.AAFU-1TAA	Module 2A-1: Aviation Fundamentals
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • TM-3 — Social & Cultural Skills (Level 2): You reflect on your own professional values and interests and demonstrate awareness of ethics and socio-cultural responsibility within the aviation industry context. • TM-5 — Research Skills (Level 2): You identify and analyse straightforward problems in international aviation practice, drawing on relevant research methods and industry data sources to support well-reasoned conclusions. • TM-7 — Financial & Legal Feasibility (Level 2): You describe the international aviation context using economic, legal, and regulatory factors, and carry out an initial assessment of the financial and legal dimensions of an aviation product or decision.
Description	In this module, you develop a comprehensive foundation in the aviation industry — its key players, business models, operations, and the forces shaping its future. You will explore aviation from multiple perspectives: the airline, the airport, the manufacturer, the customer, and the broader service ecosystem. Using the Four Domains framework (Operational, Financial, Strategic, Regulatory) as your analytical lens, you will learn to connect theory to real industry practice through case studies, guest lectures, site visits, and collaborative workshops. By the end of this module, you will have the analytical vocabulary and conceptual grounding needed to engage with aviation's complexity — and to identify where your own professional interests within the sector lie.
Success Criteria	Success criteria for this module: 1. You describe the aviation value chain and explain the roles and interdependencies of its key stakeholders. 2. You apply the Four Domains framework to analyse decisions made by airlines, airports, and service providers. 3. You use analytical tools — such as the Business Model Canvas, customer journey maps, and fleet overviews — to structure and communicate industry analysis. 4. You explain the main decarbonisation pathways in aviation and evaluate their relevance for different industry actors.
Module parts	The module is structured in: • Lectures: Theoretical input on weekly themes, with structured homework assignments.

	• Guest lectures / applied sessions: Industry practitioners presenting real-world perspectives linked to each week's theme. • Unguided Workshops: Group-based applied exercises exploring weekly content. • Guided Workshops: Debrief sessions, Media Moments, and assignment guidance. • Assessment Week: Poster Showcase Event and individual Q&A sessions with faculty/industry jury. (Site visits to airports and ATC/ANSP facilities are scheduled where timetabling allows.)
Topics covered	Topics covered in this module include: • Aviation as part of the global mobility system: size, impact, and stakeholder landscape • Airline business models: FSC, LCC, hybrid, and regional carriers; cooperation levels; network and fleet strategy • Airline operations: cost drivers, revenue streams, ancillaries, and pricing structures • The manufacturer's perspective: OEMs, lease vs. buy decisions, MRO, and fleet innovation • The customer perspective: passenger segmentation, customer journey mapping, and air passenger rights • The airport perspective: ownership models, aeronautical and non-aeronautical revenue, charges, and performance metrics • Aviation service providers: ATC/ANSPs, catering, security, EASA, and crisis management • Sustainability and innovation: decarbonisation pathways (SAF, electrification, hydrogen), carbon offsetting, SDGs, and demand management
Literature	Core textbook: Kearns, S.K. (2021). Fundamentals of International Aviation (2nd ed.). Routledge. ISBN: 9780367467944 (paperback) / 9780367467951 (hardback) Industry reports and data (available via Brightspace): • IATA Annual Review, Economics Reports, SAF Reports • ACI Airport Economics Report; ACI Economic Impact Studies • Airbus Global Market Forecast (GMF); Boeing Commercial Market Outlook (CMO) • Cirium and OAG fleet and schedule data publications • Eurocontrol economic and sustainability reports Regulatory documents: • ICAO documentation and regulations • EU Regulation 261/2004 (passenger rights) • CORSIA overview; EU-ETS aviation factsheets

Planning Block 2A, See appendix A Student Manual	Semester 1, Block 2A Weeks 1–8: Lectures, guest lectures, and workshops (5 contact hours per week; 6–8 hours independent study per week) Week 4: Aviation Foundation Challenge (AFC) — administered at end of contact session Week 9: Poster Showcase Event and individual Q&A presentations
Assessment	This module is assessed through the following components: • Groupwork: 50% of total grade • Individual Aviation Foundation Challenge: 30% of total grade • Individual Reflection Paper: 20% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Arian van der Werff
Lecturer(s)	Arian van der Werff, Remco Wachelder, Bartjan de Keijzer + guest lecturers & industry experts

BXE2-AAOL-1TAA	Module 2A-2 Airport Operations & Logistics
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • LG-1: Level 2 - Research: You research supply chain challenges in a broader context, taking sustainable, internationalization and technology into consideration • TM-2: Sustainability Skills: Level 2 - The TM professional thinks and works in a sustainable way within the work and living environment
Description	In this module, you develop insight into the operational core of airports as dynamic and highly interconnected systems. You learn how operational decisions influence airport performance, service quality, sustainability outcomes, and economic results. The module prepares you to understand and improve airport processes by combining operational analysis, KPI interpretation, and practical solution design. Special attention is given to current transformation themes such as automation, digital integration, and multimodal connectivity.
Success Criteria	Success criteria for this module: 1. You analyse stakeholder interaction in airport logistics ecosystems 2. You apply turnaround planning principles in ground handling scenarios 3. You evaluate baggage handling processes and tracking systems 4. You design basic cargo handling improvements for airport logistics 5. You assess airport retail and commercial logistics performance 6. You interpret operational KPI dashboards 7. You assess current state of digitalization in airport operations 8. You propose operational improvements integrating sustainability and efficiency
Module parts	The module is structured in: • Lectures and interactive workshops • Case-based group assignments • Guest lectures from airport industry professionals • Practical exercises and operational simulations • Field-based observation activities

Topics covered	Topics covered in this module include: • Aviation supply chain ecosystem • Ground handling and turnaround operations • Baggage handling systems • Cargo operations and freight forwarding • Airport commercial operations and retail logistics • Destination logistics and intermodal integration • Airport KPI frameworks • Digital transformation in airport operations
Literature	Core textbook: • Kazda, A. & Caves, R. (2023). Airport Design and Operation (4th ed.). Emerald Publishing ISBN 9781784418700
Planning Block 2A, See appendix A Student Manual	Week 1–8: Lectures, workshops, case work and guest lectures (5 hours per week) Week 9: Assessment week
Assessment	This module is assessed through the following components: • Groupwork: 40% of total grade • Individual Written Exam: 60% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Robin Audenaerdt
Lecturer(s)	Robin Audenaerdt Guest lecturers

BXE2.AFMI-1TAA	Module 2A-3 Facility Management & Infrastructure
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • FM-4: Spaces: Level 2 - You propose processes for the (re)design, development, acquisition, furnishing of the built and/or virtual environment fitting the strategic context of the core business, and you coordinate these processes under supervision in a semi-structured context • FM-5: Technology: Level 2 - You independently develop, implement, and manage (a set of) facility products and services, by taking a customer-centric approach, that add value to the core business in a semi-structured international context. • TM-2: Sustainability Skills: Level 2 - The TM professional thinks and works in a sustainable way within the work and living environment
Description	In this module, you will develop the comprehensive facilities management expertise needed to manage complex aviation infrastructure sustainably and effectively. You will learn to think systemically about airports as integrated facilities ecosystems, balancing operational performance, environmental responsibility, and stakeholder needs. Through analysing real airport facilities, you will discover how energy systems, building operations, maintenance strategies, and sustainability initiatives interconnect to create high-performing, resilient infrastructure. Working with industry frameworks and practical tools, you will develop strategies for resource optimization, carbon reduction, and operational excellence. The module challenges the student to move beyond managing individual systems in isolation toward creating integrated, future-proof facilities management plans. You will practice translating technical analysis into actionable recommendations, presenting to stakeholders, and reflecting critically on your own learning journey; skills essential for effective facilities management professionals in aviation.
Success Criteria	Success criteria for this module: 1. You analyse facility systems holistically, identifying interdependencies between building operations, resource flows, and stakeholder needs in an airport context. 2. You evaluate the current performance of facility systems against sustainability benchmarks and industry standards, identifying critical gaps and improvement opportunities.

	3. You design integrated resource management strategies that optimize energy, water, and waste systems while advancing circular economy principles. 4. You develop feasible implementation roadmaps that sequence interventions logically, account for operational constraints, and demonstrate awareness of cost-benefit trade-offs. 5. You create evidence-based carbon neutrality pathways with realistic milestones, demonstrating understanding of decarbonization strategies across facility operations. 6. You integrate smart building technologies and data-driven approaches into facilities management strategies in ways that enhance operational efficiency and sustainability performance. 7. You communicate technical facilities management concepts clearly and persuasively to diverse stakeholders through professional documentation and presentations. 8. You reflect critically on personal learning experiences, extracting meaningful insights about professional development and translating challenges into growth opportunities.
Module parts	The module is structured in: • Weekly lectures (2 × 1.5 hours) introducing facilities management concepts, technical foundations, and sustainability frameworks, supported by case studies and real-world applications. • Weekly workshops (2 hours) providing hands-on skill development, group project work, and practical exercises that apply lecture concepts to authentic airport facilities management challenges.
Topics covered	Topics covered in this module include: • Airport facilities management and 'aeropolis' ecosystem analysis • Terminal design, space planning, and accessibility • Building systems assessment and condition analysis • Energy auditing, efficiency strategies, and renewable energy integration • Water management, conservation, and circular water systems • Waste management and circular economy applications • HVAC systems, indoor air quality, and environmental controls • Maintenance planning, operational protocols, and asset management • Introduction to smart building technologies, IoT integration, and data-driven FM • Sustainability frameworks, carbon accounting, and net-zero pathways

	• Stakeholder engagement and facilities management communication
Literature	Core textbook: Atkin, B. & Brooks, A. (2021). Total Facility Management (5th ed.). Wiley-Blackwell. ISBN 9781119707943 (paperback) Additional materials (case studies, technical standards, sustainability frameworks, and readings) available via Brightspace.
Planning Block 2A, See appendix A Student Manual	Week 1–8: Lectures and workshops (5 hours per week) Week 8: Individual exam Week 9: Group project submission and presentations
Assessment	This module is assessed through the following components: • Groupwork: 40% of total grade • Individual Exam: 50% of total grade • Individual Reflection : 10% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Dr. Abdon Dantas
Lecturer(s)	Dr. Abdon Dantas

BXE2-BAEL-1TAA	Module 2B-1: Aviation Economics, Legal & Finance
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • TM-7: Financial & Legal Feasibility: Level 2A - You analyze the international aviation context using relevant economic, legal, and regulatory factors, and provide an initial assessment of the financial and legal dimensions of an aviation product or business decision. • FM-6: Fit for use Financial: Level 2A – You interrelate the financial implications on the knowledge domain for both the facility- and core business • FM-6: Fit for use: Level 2C – You interrelate the ethical and legal implications on the FM knowledge domain for both the facility- and core business
Description	In this module, you develop practical knowledge and analytical skills at the intersection of aviation economics, financial management, and legal frameworks. Aviation is a capital-intensive, highly regulated industry where every commercial decision carries financial and legal consequences — and this module gives you the tools to understand and navigate that complexity. You will learn how airlines and airports generate revenue and manage costs, how financial performance is measured and interpreted, how legal and regulatory frameworks govern commercial activity, and how sustainability and strategic partnerships shape aviation's future. Working with real industry data, case studies, and a commercial pitch project, you will connect theory directly to professional practice. **Prerequisite:** Block 2A-1: Aviation Fundamentals
Success Criteria	Success criteria for this module: 1. You explain the key revenue streams, cost drivers, and financial performance metrics used by airlines and airports. 2. You apply financial analysis tools and aviation-specific metrics (CASK, RASK, load factor, ASK/RPK) to evaluate an airline or airport's business position. 3. You describe the main international and EU legal frameworks governing aviation operations, including air service agreements, passenger rights, and aircraft financing law. 4. You integrate financial, legal, commercial, and sustainability considerations into a structured business argument or route proposal. You demonstrate consistent engagement with assigned readings, industry data, and current aviation news throughout the module.

Module parts	The module is structured in: • Lectures (2 hrs./week, Weeks 1–8): Theoretical input on weekly themes, with structured homework assignments. • Guest lectures / applied sessions (1–2 hrs./week, Weeks 1–8): Industry practitioners presenting real-world perspectives linked to each week's financial, commercial, or legal theme. • Unguided Workshops / UWS (2 hrs./week, Weeks 1–8): Group-based applied exercises using industry data and case scenarios. • Guided Workshops / WS (1 hr./week, Weeks 1–8): Debrief sessions, Media Moments, and assignment guidance. • Assessment Week (Week 9): Written examination Q&A session and closed-book exam.
Topics covered	Topics covered in this module include: • Airline financial management: cost structures, revenue streams, key performance metrics (CASK, RASK, ASK, RPK, load factor), and profitability analysis • Airline commercial strategy: revenue management, pricing, ancillary revenues, distribution channels, and NDC • Airport financial management: aeronautical and non-aeronautical revenue, airport charges, slot management, and performance indicators • Airport commercial development: concessions, retail, real estate, and non-aviation income streams • Aviation economics and strategic partnerships: economic impact of aviation, taxation, destination marketing, and route development support • Aviation distribution and digital transformation: GDS, OTA, direct booking, and loyalty programs • Sustainability and financial decision-making: SAF economics, EU ETS, CORSIA, carbon offsetting, and the cost of decarbonization • International and EU legal frameworks: Chicago Convention, bilateral air service agreements, freedoms of the air, EU261/2004, Montreal Convention, Cape Town Convention, and competition law
Literature	**Supporting texts:** • Kearns, S.K. (2021). *Fundamentals of International Aviation* (2nd ed.). Routledge. ISBN: 9780367467944 — used as a refresher and contextual anchor (Ch's. 1, 3, 6, 8) • Meijer, G. (2021). *Fundamentals of Aviation Operations*. Routledge. ISBN: 9780367332396 — supplementary operational bridge (Ch's. 10, 15, 16.7) (Free of download via library) **Industry reports and legal documents (available via Brightspace):** • IATA Economics Reports; IATA SAF Reports; IATA Worldwide Slot Guidelines; IATA NDC White Paper; IATA Ancillary Revenue Reports • ACI Airport Economics Report; ACI Economic Impact Studies

	• Eurocontrol Economic and Sustainability Reports • Airline and airport annual reports (KLM, Schiphol, Ryanair, Heathrow, Eindhoven) • Chicago Convention; Montreal Convention; EU Regulation 261/2004; Cape Town Convention summary • EU ETS aviation factsheets; CORSIA overview; bilateral Air Service Agreement examples
Planning Block 2B, See appendix A Student Manual	**Weeks 1–8:** Lectures, guest lectures, and workshops (5 contact hours per week; 6–8 hours independent study per week) **Week 9:** Written Examination Q&A session (optional, 1 hr.) and closed-book Written Examination (2.5 hrs.)
Assessment	This module is assessed through the following components: • Groupwork: 30% of total grade • Individual Business Case Report: 30% of total grade • Individual Written Exam : 40% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Arian van der Werff
Lecturer(s)	Arian van der Werff, Remco Wachelder, Bartjan de Keijzer & industry experts

BXE2-PBEC-1TAA	Module 2B-2 Passenger Experience & Customer Journey Design
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: ● FM-1: People: Level 2 - You independently identify, analyze and prioritize the needs and wants of relevant stakeholders. You develop coherent and realistic solutions that enhance the effectiveness, experience, and/or wellbeing, and safety of those various stakeholders in an international context. ● FM-6: Fit for use: Level 2b - You interrelate the commercial implications on the FM knowledge domain for both the facility- and core business. ● TM-2: Sustainability Skills: Level 2: The TM professional thinks and works in a sustainable way within the work and living environment. ● TM-8: The TM professional makes strategic decisions, stemming from a vision, on how a (modified) product, etc., can be marketed in the (adjusted) market, considering the micro, meso, and macro (=international) environment.
Description	Every passenger journey tells a story - from excited anticipation while booking to frustration when baggage goes missing. This module teaches you to design seamless, memorable experiences across every touchpoint: mobile apps, check-in counters, security queues, lounges, gates, flights, baggage claim, and ground transport to destinations. You'll map customer journeys, identify pain points, and create solutions using service design thinking and digital innovations like biometrics and AI personalization. Master cultural tourism integration, accessibility for all travellers, and crisis communication when things go wrong. Learn how airports function as tourism gateways, creating first and last impressions that shape destination perceptions. Balance operational efficiency with emotional satisfaction, understanding that exceptional experiences drive loyalty, positive reviews, and repeat business - turning ordinary flights into extraordinary memories that passengers eagerly share.
Success Criteria	Success criteria for this module: 1. You map and critically analyse the end-to-end passenger journey (home-to-destination), identifying key touchpoints, pain points, and moments of truth across pre-travel, airport, in-flight, and arrival stages, and propose evidence-based interventions for journey optimisation. 2. You develop an integrated marketing communications plan for an airline or airport, with particular emphasis on crisis communication

	strategies and reputation management in response to operational disruptions, safety incidents, or public scrutiny. 3. You analyse and evaluate airline and airport distribution strategies, including direct and indirect sales channels (GDS, NDC, OTAs, airline.com), and recommend an effective point-of-sale configuration aligned with the organisation's business model and target segments. 4. You design and apply a service quality management framework across the customer journey, using tools such as SERVQUAL, service blueprinting, and customer experience metrics to enhance aviation service delivery and to translate the designed experience into a compelling value proposition for the target audience. 5. You assess the role of digital technologies and data-driven applications (including self-service passenger processing, mobile platforms, biometrics, and CRM systems) in enhancing passenger services and building customer loyalty within an airline or airport context. 6. You evaluate accessibility barriers and inclusive design principles in aviation, and develop a sustainability-informed strategy to open up airport and airline services to diverse passenger groups, including persons with disabilities, elderly travellers, neurodiverse passengers, and families.
Module parts	The module is structured in: ● Weekly Masterclasses, focusing on existing theories on aspects of marketing, quality management and inclusivity. ● Workshops with applied case activities linked to each masterclass topic.
Topics covered	Topics covered in this module include: ●Customer journey optimization (home-to-destination) ●Marketing & communication ●Distribution set-up (Point of Sale) ●Service quality management ●Digital passenger services & technology – including CRM applications ●Aviation experience design & marketing ●Inclusive aviation ●Crisis communication & reputation management
Literature	**Core textbook:** Airport marketing strategies. Aviation and tourism perspectives. Lazaro Florido-Benitez. Emerald, First Ed. 2024 (Free of download via library) Airport marketing, 2nd. Ed. Nigel Halpern & Anne Graham, Routledge (Free of download via library)

	Exploring Strategy, Text & Cases from Whittington & al. Pearson. 14th Edition 2023 ISBN 9781292741482
Planning Block 2B, See appendix A Student Manual	Week 1 to 8: Lectures and workshops (4 hours per week) Week 4: Formative assessment with Pass/Fail (conditional requirement with resit opportunity) Week 9: Written report + oral defense
Assessment	This module is assessed through the following components: • Group Pitch: Pass or Fail • Written Report: 40% of total grade • Individual Oral Defense : 60% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module and no Fails.
Module owner	Michel Altan
Lecturer(s)	Chaja Kersten; Michel Altan

BXE2-BRMS-1TAA	Module 2B-3 Research Methods and Professional Skills
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	*This module contributes to the following learning outcomes:* • FM- 7: Digital & Information Skills: Level 1B – You analyse the efficiency, effectiveness and/or productivity of facility and/or core businesses, by applying relevant existing and emerging digital applications in a semi-structured environment and capacity. • TM-1 Digital Skills: The TM professional makes accurate and creative use of (new) information technology and sourcing techniques to responsibly and safely use and share data and content • TM-5 Research Skills: The TM professional recognizes and analyzes problems in the international professional practice and/or knowledge domain, providing a well-founded contribution to solving them through research, using the appropriate research methods and/or international data sources, and possesses advisory skills that make policy advising successful. • LM-7: Develop: Level 2 - You develop as a (logistics) professional inspired by industry trends and personal reflection.
Description	In this module, you develop research and professional skills essential to investigate complex aviation and tourism challenges. You will learn to apply both quantitative and qualitative research methods – from analysing passenger behaviour data to conducting stakeholder interviews. You will get acquainted with statistical software, academic writing and presentation skills to transform data and information into compelling insights. Learn market research techniques, consumer behaviour analysis, and ethical research practices essential for your internship project and career. Develop your professional identity through CV workshops, interview preparation, and goal setting aligned with industry expectations.
Success Criteria	Success criteria for this module: 5. You formulate clear research questions and problem statements that address relevant industry challenges. 6. You design appropriate research approaches, demonstrating understanding of their strengths and limitations. 7. You collect and analyse data using the appropriate tools, to draw meaningful conclusions. 8. You communicate research findings effectively through written reports and presentations. 9. You critically reflect on academic and industry research.

	10. You present yourself professionally in preparation for future internship placements.
Module parts	The module is structured in: • Lectures introducing research methodology concepts, theoretical foundations, and professional skills frameworks. • Guest lectures from industry professionals sharing real-world applications of research in aviation contexts. • Workshops providing hands-on skill development in research design, data analysis, and professional preparation activities. • Independent research project work, with formative feedback provided throughout the module.
Topics covered	*Topics covered in this module may include, but are not limited to:* • Research foundations: problem statements, research questions and academic vs industry research approaches • Qualitative and quantitative research methods • Data analysis techniques and introduction to relevant software tools • Ethical considerations in research • Industry research applications • Professional skills such as curriculum vitae development, motivation letters, assessment and interview preparations and presentation skills.
Literature	**Core textbook:** Materials will be made accessible via Brightspace and/or the Breda University of Applied Sciences library.
Planning Block 2B, See appendix B Student Manual	Weeks 1-8: Lectures, workshops, and guest lectures (approximately 5 contact hours per week) Week 6 or 7: Knowledge exam and research article synthesis Week 9: Individual portfolio submission
Assessment	This module is assessed through the following components: • Individual Research Portfolio: 50% of total grade • Individual Open Question Exam: 20% of total grade • Individual Knowledge MC Exam : 30% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	L. Hill Cabrera
Lecturer(s)	L. Hill Cabrera

BXE2.CSPB-1TAA	Module 2C-1 Strategic Planning & Business Development
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	*This module contributes to the following learning outcomes:* • LG-2: Analyse: Level 2 – You analyse financial, information, and physical flows to identify improvement opportunities and/or possible innovations in the supply chain. • TM-2: Sustainability Skills – The TM professional thinks and works in a sustainable way within the work and living environment. • TM-8: Vermarkten (Kerntaak 2) – The TM professional makes strategic decisions, stemming from a vision, on how a (modified) product can be marketed in the (adjusted) market, considering the micro, meso, and macro (=international) environment.
Description	In this module, you develop the strategic thinking skills that every aviation professional in your field needs. You will learn to analyse competitive environments, identify business opportunities, and translate insights into concrete plans and recommendations. Working with frameworks for business model innovation, market entry, and partnership development, you will discover how organisations position themselves for long-term success. Investment decision-making, financial modelling, and scenario planning give you the tools to think critically about risk and opportunity. Throughout the module, digital skills and sustainability are integrated into your strategic thinking, challenging you to develop solutions that are both commercially viable and future-proof.
Succes Criteria	Success criteria for this module: 1. You apply core concepts of strategic management, including mission, vision, and organisational purpose, to real-world professional contexts. 2. You conduct a structured analysis of the external environment using PESTEL and Porter's Five Forces frameworks. 3. You assess an organisation's internal strategic capabilities using tools such as VRIO and Porter's Value Chain. 4. You evaluate and recommend strategic options using the SAF evaluation framework (Suitability, Acceptability, Feasibility). 5. You develop a market entry or business development strategy, including partnership and alliance considerations.

	6. You apply investment decision-making and scenario planning to assess strategic risk and opportunity. 7. You design and apply a Balanced Scorecard, including KPI selection, to measure strategic performance. 8. You reflect on contemporary strategic challenges, including digital transformation, sustainability, and geopolitical uncertainty.
Module parts	The module is structured in: • Masterclasses based on the book Strategic Management for Tourism, Hospitality and Events by Nigel Evans, Fourth Edition (9781032331829), focusing on existing theories on strategic management. • Workshops with applied case activities linked to each masterclass topic.
Topics covered	Topics covered in this module include: • Strategic analysis and competitive intelligence • Business model innovation and value creation • Market entry strategies and expansion planning • Partnership development and alliance management • Investment decision-making and financial modelling • Risk management and scenario planning • Performance measurement and balanced scorecards
Literature	**Core textbook:** Evans, N. (2023). Strategic Management for Tourism, Hospitality and Events (4th ed.). Routledge. ISBN 9781032331836 (paperback) Additional materials (PowerPoint slides etc.) available via Brightspace.
Planning Block 2C, See appendix A Student Manual	Week 1–8: Lectures and workshops (5 hours per week) Week 9: Written examination
Assessment	This module is assessed through the following component(s): • Individual MC Exam : 100% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	E.D. van Diffelen
Lecturer(s)	E.D. van Diffelen

BXE2.CDSC-1TAA	Module 2C-2: Destination Supply Chain & Logistics
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • LG-1: Level 2 - Research: You research supply chain challenges in a broader context, taking sustainable, internationalization and technology into consideration • TM-2: Sustainability Skills: Level 2 - The TM professional thinks and works in a sustainable way within the work and living environment
Description	In this module, you examine aviation through the lens of the destination — exploring how airports function as economic engines and logistical hubs within their regions. You will investigate how aviation activity shapes and is shaped by local production and manufacturing industries, logistics networks, and tourism ecosystems. Topics include supply chain coordination between aviation stakeholders, destination logistics planning, seasonal demand forecasting, event logistics, sustainable passenger mobility, and crisis response. Special attention is given to how airports align with — and drive — the broader infrastructural and economic landscape of their surrounding region. By the end of this module, you will be able to critically assess the multidimensional impact of a regional airport on its destination, propose logistics and supply chain strategies that account for economic, infrastructural, and sustainability considerations, and communicate evidence-based recommendations for real-world aviation challenges.
Success Criteria	Success criteria for this module: 1. You analyse the economic and logistical footprint of an airport: identify and substantiate how a regional airport influences local industries (manufacturing, logistics, and tourism), using relevant data and sector-specific evidence to go beyond surface-level description. 2. You evaluate supply chain coordination and infrastructure alignment: assess how aviation stakeholders (airports, airlines, logistics partners) coordinate their operations within the destination context, and how well this aligns with existing regional infrastructure and economic priorities. 3. You apply destination logistics concepts to a real-world case: demonstrate the ability to translate course concepts — such as demand forecasting, seasonal capacity management, or event logistics — into concrete, context-specific analysis or recommendations for a chosen regional airport.

	4. You reason from a sustainability and resilience perspective: integrate sustainability considerations and crisis/disruption scenarios into their analysis, showing awareness of trade-offs 5. You communicate findings in a structured, evidence-based manner: present conclusions (written and/or verbally) in a way that is logically structured, grounded in sources and data, and tailored to a professional audience in the aviation or destination management sector.
Module parts	The module is structured as follows: we follow an 8-week structure, where each week we meet twice: •Session 1 (2.5 hrs) — Concept acquisition: lecture, guest input, or guided exploration •Session 2 (2.5 hrs) — Application: case work, workshop, or project (weeks 5–8)
Topics covered	Topics covered in this module include: • Aviation and the destination: stakeholders, airport typologies, and the destination concept • Economic impact of aviation: direct, indirect, induced, and catalytic effects on regional industries and tourism • Aviation supply chain coordination: actors, passenger and cargo flows, and stakeholder interdependencies • Infrastructure alignment: multimodal connectivity and the integration of airports into regional networks • Demand forecasting and capacity planning: methods, tools, and seasonal patterns • Event logistics: large-scale event planning, peak management, and coordination between aviation and destination partners • Sustainable passenger mobility: environmental impact, multimodal transport solutions, and first/last-mile planning • Tourism and air connectivity: route development, destination competitiveness, and the aviation–tourism relationship • Crisis logistics and aviation resilience: disruption typologies, emergency response frameworks, and lessons from real-world cases • Future trends in aviation and destination logistics: digitalisation, decarbonisation, and geopolitical shifts
Literature	**Core textbook:** No prescribed textbook: readings are published on Brightspace.
Planning Block 2C, See appendix A Student Manual	Week 1–8: Lectures and workshops (5 hours per week) Week 9: Written examination
Assessment	This module is assessed through the following components:

	• Groupwork: 40% of total grade • Individual Exam : 60% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Alinda Kokkinou, PhD
Lecturer(s)	Alinda Kokkinou, PhD & Guest Lecturers

BXE2.CFME-1TAA	2C-3: Facility Management Excellence
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • FM-2 Services: Level 1B - independently develop, implement and manage (a set of) facility products and services, by taking a customer-centric approach, that add value to the core business in a semi-structured international context. • FM-12.1 Comprehensive Application of AI: Level 1B - apply AI tools and techniques within their domain, demonstrating an understanding of the current capabilities and limitations of these tools while assessing their usability and effectiveness in real-world scenarios. • FM-3 Process: Level 1 - independently initiate, design and manage (a set of) processes (such as contract management, procurement and tenders) inherent to the supporting services and products in an unstructured context. • TM-2 Sustainability Skills: Level 2:— Think and work in a sustainable way within the work and living environment.
Description	In this module, you take on the role of an FM consultancy team commissioned by a fictional European airport undergoing terminal expansion. You investigate the airport's facility needs through structured stakeholder interviews, develop a professional Request for Proposal (RFP) for a major FM service bundle, and integrate their findings into a comprehensive FM Excellence Plan. The module bridges theory and professional practice across three learning phases: Explore & Diagnose (weeks 1–3), Design & Specify (weeks 4–6), and Deliver & Reflect (weeks 7–9). Each week combines 5 contact hours with 10 hours of guided self-study. By the end of this module, you will be able to independently map and prioritise the needs of diverse airport stakeholders; design FM services and SLAs grounded in primary interview data; produce a professional RFP for an FM service bundle; understand the procurement and tender logic underpinning FM contracts; and integrate sustainability thinking substantively into service design and vendor requirements. Finally you present and defend your recommendations to a professional assessor panel.
Success Criteria	Success criteria for this module (but are not limited to): 1. The RFP clearly translates stakeholder evidence into specific, measurable customer service requirements and performance standards that a real vendor could act upon, and clearly explains how those requirements add value to the core airport business. 2. The SLA framework contains KPIs that are realistic, verifiable and directly linked to the service gaps identified through interviews — not generic or copied from templates.

	3. The RFP demonstrates coherent procurement logic from scope definition through SLA design to vendor evaluation criteria, reflecting the complexity and ambiguity of an unstructured tendering context. 4. You demonstrates that FM decisions carry financial consequences for both the facility operation and the core airport business, supported by a coherent lifecycle cost model. 5. You identify relevant legal and ethical obligations (EU aviation regulation, GDPR, procurement ethics, labour standards) and shows how these shape and constrain the choices made in the RFP and FM plan. 6. Sustainability requirements in the RFP and FM plan are substantive and specific — linked to measurable environmental or social outcomes and connected to at least one SDG — rather than presented as add-on statements. 7. You apply AI tools purposefully at relevant points in the RFP process, documents what was used and for what purpose in the AI use log, and critically evaluates where AI output was sufficient and where it had to be corrected, supplemented or overridden by field evidence. 8. In the individual memo, you demonstrate independent judgement by taking a clear position on a decision where AI and interview evidence diverged, or where professional reasoning was required that AI could not provide.
Module parts	The module is structured in: Groups: 5 interdisciplinary groups of 4 (Logistics + Tourism + FM students); each group assigned one or more FM service bundle(s) (cleaning/waste, security, customer service/ accessibility support, and/or terminal maintenance) Phase 1 — Explore & Diagnose (weeks 1–3): FM fundamentals, stakeholder interviews, building systems, RFP brief issued Phase 2 — Design & Specify (weeks 4–6): interview synthesis, service specification, RFP drafting, financial and legal modelling, sustainability integration Phase 3 — Deliver & Reflect (weeks 7–9): RFP finalised into FM Excellence Plan, group presentation and Q&A, individual professional memo Throughout those weeks, you will be working on the following artifacts: 1. Conduct and document a minimum of 4 structured stakeholder interviews, covering at least 2 different stakeholder types, and produce a reflective interview evidence log. 2. Produce a complete, professional RFP document (including all 8 sections (to be explained)) for the assigned FM service bundle, grounded in stakeholder evidence.

	3. Submit a group FM Excellence Plan (2,000–2,500 words + A3 executive summary) integrating stakeholder analysis, service design, SLA framework, lifecycle cost model, legal compliance checklist and sustainability action plan. 4. Successfully defend the group FM Plan and RFP in a 10-minute presentation and 5-minute Q&A before an FM assessor panel acting as potential vendors. 5. Submit an individual professional memo (800–1,000 words) arguing a clear, evidence-based stance on one specific FM decision arising from the RFP process. This will be tested during an oral exam where the students reflect on the portfolio and share improvements they deem important (personal) based upon the feedback provided.
Topics covered	Topics covered in this module might include, but are not limited to: • Stakeholder analysis and needs assessment in airport FM contexts • Request for Proposal (RFP) development for FM service bundles • Service design, service catalogue development and SLA frameworks • Vendor management and contract management in aviation FM • Health, safety and security management systems in airports • Environmental compliance, green building operations and sustainability reporting (BREEAM/LEED) • Space utilisation optimisation and flexible terminal design • Legal and ethical frameworks in FM: EU aviation regulations, GDPR, procurement ethics
Literature	**Core textbook:** • van Sprang, H., & Drion, B. (2020). Introduction to facility management (1st international ed.). Routledge / Noordhoff. ISBN 9789001752552 **Key articles and standards:** • EN 15221 Facility Management Standard (overview provided via Brightspace) • IFMA (2022). Facility Management Competency Framework. International Facility Management Association. *Additional articles, case studies and templates might be provided via Brightspace per week.*
Planning Block 2C, See appendix A Student Manual	9 weeks | 5 contact hours per week | Approx. 10 self-study hours per week | 140 hours total (5 EC) **Indicative weekly overview (subject to change):** Week 1: Foundations & RFP brief

	Week 2: Stakeholder interviews I Week 3: Stakeholder interviews II & legal landscape Week 4: Interview synthesis & service design Week 5: SLA design & financial modelling Week 6: Sustainability, compliance & RFP peer critique Week 7: Integration & rehearsal Week 8: Group summative (40%) Week 9: Individual summative (60%)
Assessment	This module is assessed through the following components: • Groupwork : 40% of total grade • Individual Professional Memo: 60% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Pleun van Deurssen (International Facilities Management)
Lecturer(s)	Pleun van Deurssen Expert in Contract Management Expert in Service Landscape Expert in Procurement Additional (FM) staff

BXE.DAAA-1TAA	Module 2D-1 Advanced Airline & Aviation Management
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • LG-1: Research: Level 2 - You research supply chain challenges in a broader context, taking sustainable, internationalization and technology into consideration. • LG-2: Analyse: Level 2 - You analyse financial, information, and physical flows to identify improvement opportunities and/or possible innovations in the supply chain. • TM-2: Sustainability Skills - The TM professional thinks and works in a sustainable way within the work and living environment.
Description	In this module, you develop the analytical skills that an aviation professional needs to navigate the complex and volatile aviation environment. Building on your understanding of the aviation sector, you will learn to understand the strategic position of an airline, assess the internal and external forces reshaping its operations, and develop evidence-based recommendations for how it should position itself to be future proof. Working with real airline cases, you will examine how strategic choices, regarding networks, business models, and operational design, translate into concrete operations realities. You will explore how megatrends including geopolitical instability, digitalisation, and sustainability are forcing airlines to rethink assumptions, and how regulatory frameworks shape the boundaries within which strategy must be made. Throughout the module, sustainability is not treated as a separate topic but as a perspective applied to every strategic and operational question. You will assess trade-offs between commercial viability and environmental responsibility. The module is structured around a group assignment in which your team selects a real airline, builds a structured analysis of its current strategy and operating context, and proposes an improved 5-year strategic direction. Two formative feedback sessions are planned to progress this assignment step by step, and in addition a Q&A is planned for any remaining questions prior to submission. An individual exam will assess if you understand the basic terms and concepts and if you have the analytical capability.

Success Criteria	Success criteria for this module: 9. You describe and apply key frameworks to analyse the strategic position of an airline (LG-2). 10. You identify, select, and evaluate relevant academic and industry sources to support analysis of aviation logistics challenges (LG-1). 11. You analyse the internal and external factors shaping an aviation organisation's strategic context (LG-2). 12. You assess sustainability trade-offs in aviation logistics decisions and argue for a course of action (TM-2). 13. You develop and defend an evidence-based strategic recommendation for an aviation organisation operating in a volatile environment (LG-1 + LG-2).
Module parts	**The module is structured in:** • Masterclasses based on the book. • Formative feedback on your assignment by your peers and the lecturer.
Topics covered	**Topics covered in this module include:** • Aviation System & Value Chain • Airline Strategy & Business Models • Aviation Network Management & Operations • Megatrends, Risk & Resilience • Aviation Regulation & Compliance • Sustainability
Literature	Core textbook: Wittmer, A., Bieger, T., & Müller, R. (Eds.) (2021). *Aviation Systems: Management of the Integrated Aviation Value Chain* (2nd ed.). Springer. ISBN 9783030795511 (Free of download databank Springer.com) Additional materials (PowerPoint slides etc.) available via Brightspace.
Planning Block 2D, See appendix A Student Manual	Week 1–8: Lectures (2 hours per lecture) Week 8: Hand-in Group Case Analysis (Airline Strategy Analysis). There will be two formative feedback sessions and a Q&A regarding this assignment. Week 9: Written examination

Assessment	This module is assessed through the following components: • Groupwork: 40% of total grade • Individual Written Exam : 60% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	R. van der Wegen
Lecturer(s)	R. van der Wegen

BXE2-DIDM-1TAA	Module 2D-2: Innovation Management & Digital Transformation
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • FM 1: People Level 3 – You independently identify, analyze and prioritize the needs and wants of relevant stakeholders. You develop coherent and realistic solutions that enhance the effectiveness, experience, and/or wellbeing, and safety of those various stakeholders in an international context. • FM 5:Technology Level 2 - You independently develop, implement, and manage (a set of) facility products and services, by taking a customer-centric approach, that add value to the core business in a semi-structured international context. • FM-7: Digital & Information Skills: Level 2 - You enhance the efficiency, effectiveness and/or productivity of facility and/or core businesses, by independently and responsibly applying relevant existing and emerging digital applications in any kind of FM environment and capacity. • FM-12.2: Ethical Utilisation of AI: Level 1B - Implement AI in a responsible and ethical manner by critically evaluating the societal, ethical, and legal implications of AI applications, and making informed decisions that ensure compliance with regulations, respect data privacy, and foster transparency and trust within their domain.
Description	In this module, you will approach the concept of innovation from multiple perspectives. By applying multiple models and theories to real-world case studies, you will develop a holistic and nuanced understanding of where, when, how, why – and more importantly with and for whom – innovations happen in organisations.
Success Criteria	Success criteria for this module: 1. You recognise key theories and models that describe innovation 2. You apply these theories and models to real-world use cases 3. You describe innovation processes in the airport and aviation (or closely related) industries. 4. You identify a broad variety of stakeholders involved in and/or impacted by innovation processes 5. You analyse the needs & behaviours of these stakeholders in order to make recommendations 6. You identify key recent technological development 7. You analyse the impact of these technological developments in the airport and aviation industries.

Module parts	This course combines three main threads to weave the tapestry of innovation: • Theories and models that describe and prescribe innovation processes. • Analysing specific case studies of innovation in the airport and aviation industries. • Understanding and assessing technological developments, included but not limited to Artificial Intelligence.
Topics covered	This course may cover the following topics (this list is neither definitive nor exhaustive): • Forms of Innovation (Crossan & Apaydin, 2000) • Innovation processes (Rothwell, 1994) • Technology Acceptance Model (Venkatesh & Davis, 2000) • Stakeholder Analysis (Varvaszovsky & Brugha, 2000) • Theory of Change (Gienapp & Hostetter, 2022) • Futures Cone (Hancock & Bezold, 1994) • Technology, Organisation & External Environment (TOE) Framework (Baker, 2012) • Hype Cycle (Steinert & Leifert, 2010)
Literature	This course doesn't rely on a specific book but on a series of theoretical frameworks, which can be found in the following non-exhaustive list: • Baker, J. (2012). The Technology–Organization–Environment Framework. In: Dwivedi, Y., Wade, M., Schneberger, S. (eds) *Information Systems Theory*. Integrated Series in Information Systems, vol 28. Springer, New York, NY. https://doi.org/10.1007/978-1-4419-6108-2_12 • Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies, 47*(6), 1154–1191. https://doi.org/10.1111/j.1467-6486.2009.00880.x • Gienapp, A. & Hostetter, C. (2022). Developing a Theory of Change: Practical Guidance. Overview of Theory of Change Concepts and Language. The Annie E. Casey Foundation. https://assets.aecf.org/m/resourcedoc/aecf-theoryofchange-guidance-2022.pdf • Hancock, T. & Bezold, C. (1994), 'Possible Futures, Preferable Futures', Healthcare Forum Journal, 37(2):23-29. • Varvasovszky, Z., & Brugha, R. (2000). How to do (or not to do)… A stakeholder analysis. *Health Policy and Planning,* 15(3), 338–345, https://doi.org/10.1093/heapol/15.3.338 • Rothwell, R. (1994). Towards the fifth-generation innovation process. *International Marketing Review*, *11*(1), 7–31. https://doi.org/10.1108/02651339410057491 • Steinert, M. & Leifer L. (2010). Scrutinizing Gartner's hype cycle approach. *PICMET 2010 Technology Management For Global Economic Growth.* https://ieeexplore.ieee.org/abstract/document/5603442

	• Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, *46*(2), 186-204. http://www.jstor.org/stable/2634758
Planning Block 2D See Appendix A Student Manual	Weeks 1–5: Lectures and workshops (4 to 6 hours per week) Weeks 6–7: Individual oral presentations Week 8: Group oral presentations Week 9: Resits
Assessment	This module is assessed through the following components: • Groupwork: 35% of total grade • Individual Portfolio: 65% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Raphaël Velt
Lecturer(s)	Raphaël Velt

BXE2.DTAP-1TAA	Module 2D-3: Transformative Airline Management Simulation
Module description	
Study load	**5 ECTS credits**
Contribution to Learning Outcomes	This module contributes to the following learning outcomes: • TM-2: Sustainability Skills: Level 2 - You recognise the trade-offs between airline profitability and environmental performance, and identify actions that reduce CO_2 emissions within operational and financial constraints. • TM-4: Resilience Skills: Level 2 - You demonstrate adaptability in response to competitive simulation results, reflect on your own decision-making, and contribute constructively within a team context across multiple rounds of play. • TM-5: Research Skills: Level 2 - You analyse your airline's simulation performance using appropriate metrics and data sources, and translate findings into well-reasoned strategic recommendations. • TM-7: Financial & Legal Feasibility: Level 2 - You assess the financial and strategic dimensions of airline management decisions, including cost structures, revenue optimisation, and fleet investment trade-offs, using industry-relevant data and frameworks. • TM-6: Initiating & Creating: Level 2 - You develop and iteratively improve an airline business strategy in a competitive simulation environment, making data-driven decisions that respond to market conditions and performance outcomes. • LG-3: Design: Level 2 - You (re)design a feasible and viable improvement or innovation for a process/product in the supply chain. • LG-4: Advice: Level 2 - You advise on possible improvements and/or applicable innovations in the supply chain. • LG-5: Implement: Level 2 - You implement improvements and/or innovations in the supply chain. • LG-6: Manage: Level 2 - You manage a project or process to achieve the intended result. • FM-13.1: Sustainable Realities: Level 2 - With limited coaching and direction, make well-argued choices and decisions in crafting context-specific courses of action (within or across domains) to tackle societal challenges that relate to climate change and/or the broader challenge of sustainable development. • FM-13.2: Societal Challenges: Level 2 -With limited coaching and direction, make well-argued choices and decisions in crafting their/your own (current and future, personal and professional) role in tackling societal challenges that relate to climate change and/or the broader challenge of sustainable development

Description	In this module, you apply airline management theory to practice by running a virtual airline over six competitive simulation rounds using the Airline Online Simulation platform. Building on the knowledge you developed in Blocks 2A and 2B, you and your team make real strategic Each week deepens your analytical toolkit in a specific management dimension: unit economics, route network strategy, fleet planning, revenue management, and environmental performance. Guest speakers from the airline industry connect each theme to current professional practice. By the final week, you will have experienced — and reflected on — the full strategic cycle of running an airline, from business plan to performance debrief. Prerequisites: Block 2A-1: Aviation Fundamentals; Block 2B-1: Aviation Economics, Legal & Finance
Success Criteria	Success criteria for this module: 1. You apply unit economics frameworks (CASK, RASK, load factor, profit margin) to evaluate and improve your airline's financial performance across simulation rounds. 2. You develop a coherent route network strategy that balances market demand, competitive positioning, and operational capacity. 3. You can assess fleet planning trade-offs — including aircraft type, utilisation, and lease vs. buy decisions — and justify choices with financial reasoning. 4. You analyse revenue management decisions (pricing, ancillaries, distribution) and explain their contribution to overall profitability. 5. You evaluate the sustainability implications of your airline's operational choices and identify realistic pathways to improve environmental performance. 6. You demonstrate individual analytical ownership through operational reports and a final reflection that shows genuine learning from simulation outcomes.
Module parts	The module is structured in: • Lectures (1.5 hrs/week, Weeks 1–8): Analytical frameworks and deeper dives into management themes not fully developed in earlier blocks. • Guest lectures (1 hr/week, selected weeks): Senior industry practitioners presenting real-world perspectives on each week's management theme. • Simulation sessions (2 hrs/week, Weeks 2–8): Competitive batch runs on the Airline Online Simulation platform, with team decision-making and debrief. • Workshops and debriefs (1–1.5 hrs/week, Weeks 1–8): Applied exercises, strategy refinement, and assignment guidance. • Assessment Week (Week 9): Final report submission, team presentations, and individual Q&A with faculty.

Topics covered	• Airline business model design: market positioning, network strategy, and the Business Model Canvas • Unit economics: CASK, RASK, ASK, RPK, load factor, fixed and variable cost structures, and break-even analysis • Route network strategy: route selection, demand analysis, load factor management, and route-level profitability • Fleet planning: aircraft selection criteria, utilisation rates, lease vs. buy trade-offs, and capacity management • Revenue management: pricing strategy, demand forecasting, ancillary revenue, loyalty programmes, and distribution channels • Sustainability in airline operations: CO_2 metrics, SAF economics, carbon offsetting, EU ETS, CORSIA, and the business case for decarbonisation • Strategic integration: ancillary revenue, air cargo, competitive response, scenario analysis, and long-term planning • Performance analysis and reflection: synthesising multi-round simulation data into strategic narrative and individual learning
Literature	Supporting texts (selected chapters — used as analytical bridges alongside simulation data): • Kearns, S.K. (2021). Fundamentals of International Aviation (2nd ed.). Routledge. ISBN: 9780367467944 — used as a refresher and contextual anchor (Ch's. 3, 8) • Meijer, G. (2021). Fundamentals of Aviation Operations. Routledge. ISBN: 9780367332396 — supplementary operational depth (Ch's. 14, 15, 16.7) Free of download via library Industry reports and data (available via Brightspace): • IATA Annual Review; IATA Economics Reports; IATA Ancillary Revenue Reports; IATA SAF Reports • IdeaWorks: Airline Ancillary Revenue Reports • Oliver Wyman: Airline Economic Analysis (latest) • Eurocontrol: Aviation sustainability statistics • ICAO: CORSIA Overview; ICAO Carbon Emissions Calculator • ATAG: Waypoint 2050 (aviation climate action roadmap) Case studies (available via Brightspace): • Ryanair / easyJet / Wizz Air: LCC unit economics and ancillary strategy • KLM: Fly Responsibly sustainability programme • Lufthansa Group: network carrier diversification • United Airlines / SAS: SAF investment and carbon programmes
Planning Block 2D, See appendix A Student Manual	Week 1: Course introduction, platform orientation, and team formation

	Weeks 2–8: Simulation batches (Trial + 6 competitive rounds), lectures, workshops, and rolling assessments (5 contact hours per week; 6 hours independent study per week) Week 9: Final report due (morning); team presentations and individual Q&A (afternoon)
Assessment	This module is assessed through the following components: • Groupwork (4 items): 40% of total grade • Individual Assessments (7 items): 60% of total grade A minimum grade per component of 4.5 and a final grade of 5.5 or higher is required to pass this module.
Module owner	Arian van der Werff
Lecturer(s)	Arian van der Werff, Remco Wachelder, Bartjan de Keijzer + guest lecturers

Games

Leisure & Events

Tourism

Media

Data Science & AI

Hotel

Logistics

Built Environment

Facility

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