

COURSE OUTLINE

1. Data about the study programme

1.1 Higher education institution	Transilvania University of Brasov
1.2 Faculty	Technological Engineering and Industrial Management
1.3 Department	Engineering and Industrial Management
1.4 Field of study ¹⁾	Engineering and Management
1.5 Study level ²⁾	MA
1.6 Study programme/ Qualification	Engineering and Management in Aviation / Master

2. Data about the course

2.1 Name of course	Airline Management							
2.2 Course convenor	Sebastian POP							
2.3 Seminar/ laboratory/ project convenor	Sebastian POP							
2.4 Study year	II	2.5 Semester	4	2.6 Evaluation type	V	2.7 Course status	Content ³⁾	AC
							Attendance type ⁴⁾	EC

3. Total estimated time (hours of teaching activities per semester)

3.1 Number of hours per week	2	out of which: 3.2 lecture	1	3.3 seminar/ laboratory/ project	0/1/0
3.4 Total number of hours in the curriculum	28	out of which: 3.5 lecture	14	3.6 seminar/ laboratory/ project	0/14/0
Time allocation					hours
Study of textbooks, course support, bibliography and notes					10
Additional documentation in libraries, specialized electronic platforms, and field research					10
Preparation of seminars/ laboratories/ projects, homework, papers, portfolios, and essays					10
Tutorial					14
Examinations					3
Other activities.....					
3.7 Total number of hours of student activity		47			
3.8 Total number per semester		75			
3.9 Number of credits ⁵⁾		3			

4. Prerequisites (if applicable)

4.1 curriculum-related	• Not specified
4.2 competences-related	• Not specified

5. Conditions (if applicable)

5.1 for course development	<ul style="list-style-type: none"> The course should have a minimum of 10 participants to ensure interaction and productive discussions. The course will take place in a classroom equipped with audio-visual equipment (projector, screen, sound system) for presentations. Access to digital educational resources is also required. Participants will have access to course materials (textbooks, guides, presentations) and additional study resources. These can be provided in physical or digital format.
5.2 for seminar/ laboratory/	<ul style="list-style-type: none"> The laboratories will be conducted in specialized laboratories, equipped with the

project development	<p>equipment and tools necessary for practical activities, such as propulsion systems, electrical equipment and test materials.</p> <ul style="list-style-type: none"> • All participants must be trained on safety rules and good practices in the use of laboratory equipment, including the wearing of protective equipment, where applicable.
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6. Specific competences and learning outcomes

Professional competences	<p>Ability to coordinate and manage aviation operations, including flight planning and optimizing the use of air resources.</p> <ul style="list-style-type: none"> - Ability to communicate clearly and concisely in aviation contexts, both verbally and in writing. - Understanding of international legislation and regulations governing air transport activities. - Ability to identify, assess and manage risks associated with air operations. - Flexibility and openness to integrating new technologies and trends into aviation practice.
Transversal competences	<p>Ct.2 Practices results-oriented leadership towards colleagues</p> <p>L.O.2.2. The graduate will be able to organize and coordinate the team, outlining clear tasks to all team members.</p> <p>L.O.2.3. The graduate will be able to provide project management, for the management and planning of material, human, financial and informational resources for a given project as well as for the evaluation of the technical-economic results of that project.</p> <p>Ct.3. Negotiates with stakeholders</p> <p>L.O.3.1. The graduate will be able to achieve effective communication on technical and/or commercial issues with various suppliers and/or customers.</p> <p>L.O.3.2. The graduate will be able to build an effective relationship with business partners in order to establish a collaborative, sustainable cooperation.</p>

7. Course objectives (resulting from the specific competences to be acquired)

7.1 General course objective	<ul style="list-style-type: none"> • Developing the skills necessary for the effective management of airline operations, with a particular emphasis on airspace management, air communications, and compliance with legislative regulations, to prepare students to contribute to the safety and efficiency of air transport.
7.2 Specific objectives	<ul style="list-style-type: none"> • Understanding the structures and functions of airspace • Developing aeronautical communication skills • Knowledge of international regulations • Analysis of aviation safety and risks • Identification of emerging trends in aviation • Students will analyze technological innovations and current trends

8. Content

8.1 Course	Teaching methods	Number of hours	Remarks
1. Introduction to Airline Management - Definition of key concepts. - The role of airlines in global air transport.	Lecture – debate, problematization	2	
2. Airspace Management - Airspace structure. - Planning and efficient use of air resources. - Impact of air congestion on operations.	Lecture – debate, problematization	2	
3. Air Communications - Communication systems between aircraft and air	Lecture – debate, problematization	2	

traffic control. - The importance of communications in flight safety.			
4. Legislative Aspects in the Aeronautical Field - International regulations (ICAO, FAA). - Rights and obligations of airlines.	Lecture – debate, problematization	2	
5. Aviation Safety Management - Safety policies and operational procedures. - Risk analysis and incident management.	Lecture – debate, problematization	2	
6. Trends and Innovations in Aviation - Emerging technologies (drones, automation). - The impact of climate change on aviation.	Lecture – debate, problematization	2	
Bibliography			
1. Starkie, D. (2018). <i>*Airline Economics: Dilemmas and Opportunities.*</i> Routledge.			
2. Kearney, A. T. (2017). <i>*The Future of Air Transportation: Trends and Strategies for the Aviation Industry.*</i> Kearney, A.T.			
3. ICAO (International Civil Aviation Organization). (2021). <i>*Safety Management Systems (SMS) for Aviation Service Providers.*</i> ICAO Doc 9859.			
4. Graham, A. (2014). <i>*Managing Airports: An International Perspective.*</i> Routledge.			
5. Boeing. (2021). <i>*Current Market Outlook 2021–2040.*</i> Boeing Commercial Airplanes.			
8.2 Seminar/ laboratory/ project	Teaching-learning methods	Number of hours	Remarks
1. Airspace Management Simulation - Air traffic maps and management strategies. - Practical scenarios for reducing congestion.	Demonstration, modeling	2	
2. Air Communications Workshop - Communication exercises between pilots and controllers. - Case studies on communication issues.	Demonstration, modeling	2	
3. Legislative Analysis - Case study on specific regulations. - Simulation of the licensing process for airlines.	Demonstration, modeling	2	
4. Risk Assessment and Management - Practical exercises on risk identification. - Planning of preventive measures.	Demonstration, modeling	2	
5. Case Study - Flight Safety - Investigation of incidents in the history of aviation. - Lessons learned and legislative changes.	Demonstration, modeling	2	
6. Presentations and Debates on Current Topics - Discussion groups on current topics in aviation. - Presentation and confrontation of different points of view.	Demonstration, modeling	2	
Bibliography			
1. Elbanna, S., & Hobbs, S. (2020). <i>*Air Traffic Management: Performance-Based Navigations and Future Challenges.*</i> Springer.			
2. Kharas, H., & Dooley, M. (2018). <i>*Economic Aspects of Air Traffic Management.*</i> Brookings Institution Press.			
3. Hsu, C., & Chang, Y. (2019). <i>*Aviation Communication Systems: Principles and Applications.*</i> Wiley.			
4. International Air Transport Association (IATA). (2022). <i>*IATA Annual Review 2022.*</i>			

9. Correlation of course content with the demands of the labour market (epistemic communities, professional associations, potential employers in the field of study)

The contents were developed in relation to the requirements of employers, so that the learning outcomes can be applied in the industrial environment and in research.

10. Evaluation

Activity type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Percentage of the final grade
10.4 Course	Completeness and correctness of knowledge; Degree of assimilation of knowledge.	Written examination	70%
10.5 Seminar/ laboratory/ project	Logical coherence, fluency, expressiveness, argumentative force.	Elaboration of reports	30%
10.6 Minimal performance standard			
<ul style="list-style-type: none"> Students must attend a minimum of 80% of the lecture and laboratory hours to benefit from the knowledge and skills transmitted. Students must actively engage in discussions, group activities and practical exercises in the laboratories, demonstrating a constant interest in the learning process. Students must pass all intermediate assessments and the final exam, obtaining a minimum score of 60% to demonstrate that they have understood the material taught. 			

This course outline was certified in the Department Board meeting on 17/09/2024 and approved in the Faculty Board meeting on 26/09/2024.

Prof. Eng Tudor Ion DEACONESCU, PhD	Assoc.Prof. Eng Flavius SÂRBU, PhD
Dean	Head of Department
Phd. Pop Sebastian	Phd. Pop Sebastian
Course holder	Holder of seminar/ laboratory/ project

Note:

- 1) Field of study – select one of the following options: Bachelor / Master / Doctorat (to be filled in according to the forceful classification list for study programmes);
- 2) Study level – choose from among: Bachelor / Master / Doctorat;
- 3) Course status (content) – for the Bachelor level, select one of the following options: **FC** (fundamental course) / **DC** (course in the study domain)/ **SC** (speciality course)/ **CC** (complementary course); for the Master level, select one of the following options: **PC** (proficiency course)/ **SC** (synthesis course)/ **AC** (advanced course);
- 4) Course status (attendance type) – select one of the following options: **CPC** (compulsory course)/ **EC** (elective course)/ **NCPC** (non-compulsory course);
- 5) One credit is the equivalent of 25 study hours (teaching activities and individual study).