

Airline Operations

Code: 101769
ECTS Credits: 6

2024/2025

Degree	Type	Year
2501233 Aeronautical Management	OB	3

Contact

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Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

None

Objectives and Contextualisation

Introduce the student to airline operations by addressing the following aspects:

1. Awareness of the importance of quality, safety and the role played by the human factor in these aspects.
2. Know the processes of boarding people and cargo in an aircraft.
3. Introduce basic concepts about the flight of an aircraft and the influence of meteorological factors.
4. Establish the basis of the internal organization of an airline to respond to the previous challenges.

Competences

- Communication.
- Identify, develop and maintain the necessary resources to meet the tactical and operative needs inherent to air transport activities.
- Personal attitude.
- Personal work habits.
- Supervise the management of resources in an airport.
- Thinking skills.
- Use knowledge of the fundamental principles of mathematics, economics, information technologies and psychology of organisations and work to understand, develop and evaluate the management processes of the different systems in the aeronautical sector.

Learning Outcomes

1. Assess alternatives in the case of self-handling.
2. Communicate knowledge and findings efficiently, both orally and in writing, both in professional situations and with a non-expert audience.

3. Critically assess the work done.
4. Describe the general aspects of JAR/EASA rules.
5. Describe the operations to be coordinated in aircraft turnaround time.
6. Develop critical thought and reasoning.
7. Develop curiosity and creativity.
8. Develop independent learning strategies.
9. Develop the ability to analyse, synthesise and plan ahead.
10. Draw up and interpret passenger service procedures.
11. Identify the human resources (cabin crew) for the daily operations of aircraft.
12. Identify the maintenance operations to be performed on aircraft, and their impact on quality of service.
13. Identify the resources and procedures necessary to ensure flight safety.
14. Identify types of airlines and services that they offer.
15. Maintain a proactive and dynamic attitude towards career progression, personal growth and continuous professional development. Have the will to succeed.
16. Make efficient use of ICT in communicating ideas and results.
17. Manage time and available resources. Work in an organised manner.
18. Plan and control operations.
19. Plan the activities that make up the turnaround cycle in airline operations.
20. Understand the basic principles of general meteorology and climatology.
21. Use English as the primary language of professional communication.
22. Work independently.

Content

BLOCK 1: Organization of an Airline

- Safety Management System
- Quality Management System
- Human Factors
- Handling
- Maintenance

BLOCK 2: Aeronautical

- Aeronautics. Aircraft Construction, Principles of Flight, Aerodynamics, Performances.
- Climate Theory

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Problem-solving sessions	2	0.08	13, 19
Project presentations	12	0.48	2, 3, 4, 5, 6, 7, 12, 14, 15, 16, 18, 20, 21
Theory classes	36	1.44	1, 4, 5, 10, 11, 12, 13, 14, 18, 19, 20
Type: Supervised			
Tutorship	12	0.48	1, 4, 5, 10, 11, 12, 13, 14, 18, 19, 20
Type: Autonomous			

Project (Team)	12	0.48	2, 3, 7, 16, 17, 21
Study	42	1.68	6, 8, 9, 17, 22

Teaching will be offered on campus or in an on-campus and remote hybrid format depending on the number of students per group and the size of the rooms at 50% capacity.

Theory classes

Professor exposition, who will give the basic concepts and encourage participation for debate. All the subjects are about real experiences of aerial activity and are eminently professional. The main basis of the subject is the demonstration of the theory of an airline management based on the experience of the speakers.

Problem-solving seminar

The Aviation Fundamentals classes (aircraft weight and balance exercises), airline Audit as well as the Operations Engineering (performance calculation exercises), incorporate one hour of problem-solving each. The students receive the data and the questions of each subject and must be completed in a specific time.

Practical project 1 - group

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Activities and problems. Seminars.	30%	16	0.64	1, 2, 3, 4, 5, 6, 9, 10, 12, 13, 14, 19, 20, 21
Exam	50%	2	0.08	1, 2, 3, 5, 6, 9, 10, 11, 12, 13, 17, 18, 19, 20, 22
Project	20%	16	0.64	2, 3, 6, 7, 8, 9, 15, 16, 17, 18, 21, 22

This subject does not provide for the single assessment system.

NON-ASSESSABLE STUDENTS (NA)

A student will be considered non-evaluable (NA) if he/she does not appear in either of the two written tests of the subject (ordinary and/or recovery).

HONORS (MH)

Awarding an honor matriculation qualification is the decision of the teaching staff responsible for the subject. UAB regulations indicate that MH can only be granted to students who have obtained a final grade equal to or higher than 9.00. Up to 5% of MH of the total number of enrolled students can be awarded.

EVALUATION OF REPEATING STUDENTS

Repeating students will not be treated differently, and will have to carry out all the activities and tests proposed to pass the subject.

GLOBAL EVALUATION OF THE SUBJECT:

The final rating, CF, is obtained using the expression:

$CF = 0.3 * (\text{Weighted arithmetic average of the activities and problems/seminars; not all deliverables have the same weighting}) + 0.5 * (\text{Grade of the official final or recovery exam}) + 0.2 * (\text{Evaluation of all project items}).$

It is a requirement to pass the subject to have a minimum grade of 5 out of 10 in the official final or recovery exam.

The number of assignments will be scheduled in view of the development of the course. To take the make-up exam, you will be in accordance with the regulations of the degree.

The Project, seminars, and the Activities and problems are not recoverable.

The proposed activities that are not presented within the indicated period will be scored zero.

Without prejudice to other disciplinary measures deemed appropriate, irregularities committed by the student that may lead to a change in the grade of an assessment act will be graded with a zero. Therefore, copying, plagiarism, deception, allowing copying, etc. in any of the assessment activities will involve failing it with a zero.

Reminder: 1 ECTS = 25 hours of student work.

Bibliography

Documents:

1. PRESENTATIONS
2. AIR OPS (EASA)
3. How to implement an AS9100 (ETI GROUP)
4. Manual del Piloto (FAA)
5. Mejora continua (artículo)

Links of interest:

REVISTA AVIACIÓ: <http://www.skybrary.aero>

ACCIDENTS AËRIS: <http://www.planecrashinfo.com/database.htm>

REVISTA SEURETAT: <http://www.flightsafety.org>

IATA: <http://www.iata.org>

AVIACIÓ CIVIL INTERNACIONAL: <http://www.icao.int>

DIRECCIÓ GENERAL D'AVIACIÓ CIVIL: <http://www.mfom.es>

AIS: <http://ais.aena.es>

EUROCONTROL: <http://www.eurocontrol.int>

EASA: <http://www.easa.eu.int>

FAA: <http://www.faa.gov>

Software

Language list

Name	Group	Language	Semester	Turn
(PAUL) Classroom practices	11	Catalan	first semester	afternoon
(PAUL) Classroom practices	12	Catalan	first semester	afternoon
(SEM) Seminars	11	Catalan	first semester	afternoon
(SEM) Seminars	12	Catalan	first semester	afternoon
(SEM) Seminars	13	Catalan	first semester	afternoon
(TE) Theory	11	Catalan	first semester	afternoon

PROVISIÓ