

## 220321 - Airport Operations

Coordinating unit:	205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering		
Teaching unit:	220 - ETSEIAT - Terrassa School of Industrial and Aeronautical Engineering		
Academic year:	2018		
Degree:	MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Teaching unit Optional) MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Teaching unit Optional)		
ECTS credits:	5	Teaching languages:	English

### Teaching staff

Coordinator: Jordi Margarit Garcia

### Degree competences to which the subject contributes

Specific:

- CEEAEROP3. MUEA/MASE: The ability to apply analytical and business management techniques to aeronautical companies (specific competency for the specialisation in Airports).
- CEEAEROP1. MUEA/MASE: The ability to analyse airport operations, planning and air transport (specific competency for the specialisation in Airports).
- CEEAEROP2. MUEA/MASE: The ability to design and calculate airport installations (specific competency for the specialisation in Airports).

### Teaching methodology

The course is divided into parts:

- Theory classes
- Practical classes
- Self-study for doing exercises and activities.

In the theory classes, teachers will introduce the theoretical basis of the concepts, methods and results and illustrate them with examples appropriate to facilitate their understanding.

In the practical classes (in the classroom), teachers guide students in applying theoretical concepts to solve problems, always using critical reasoning. We propose that students solve exercises in and outside the classroom, to promote contact and use the basic tools needed to solve problems.

Students, independently, need to work on the materials provided by teachers and the outcomes of the sessions of exercises/problems, in order to fix and assimilate the concepts.

The teachers provide the syllabus and monitoring of activities (by ATENEA).

### Learning objectives of the subject

Knowledge of the conditions in which the airport activity is to develop, both operational and safety aspects.

### Study load

Total learning time: 125h	Hours large group:	30h	24.00%
	Hours small group:	15h	12.00%
	Self study:	80h	64.00%

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### Content

<p>Module 1: Introduction</p>	<p>Learning time: 6h Theory classes: 3h Self study : 3h</p>
<p>Description: 1. Basic concepts related to airport operations</p>	
<p>Module 2: Airport infrastructure</p>	<p>Learning time: 62h Theory classes: 15h Practical classes: 7h Self study : 40h</p>
<p>Description: 2. Operation of airport infrastructure</p> <p>Related activities: Practical exercise to analyze the impact of a new air operator to the airport in terms of the infrastructure</p>	
<p>Module 3: Passenger process</p>	<p>Learning time: 24h Theory classes: 6h Practical classes: 3h Self study : 15h</p>
<p>Description: 3. Flow of departure, arrival and connection for passengers. Human and material resources required</p> <p>Related activities: Practical exercise to analyze the impact of a new air operator to the airport in terms of the Passenger process</p>	
<p>Module 4: Baggage process</p>	<p>Learning time: 15h Theory classes: 3h Practical classes: 2h Self study : 10h</p>
<p>Description: 4. Flow of departure, arrival and connection for baggage. Human and material resources required</p> <p>Related activities: Practical exercise to analyze the impact of a new air operator to the airport in terms of the Baggage process</p>	

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Module 5: Aircraft process	Learning time: 18h Theory classes: 3h Practical classes: 3h Self study : 12h
Description: 5. Handling services. Aircraft ground operations. Human and material resources required Related activities: Practical exercise to analyze the impact of a new air operator to the airport in terms of the Aircraft process	

### Qualification system

The final grade is composed of three parts: 50% result of the final exam + 40% result of the practical project (compound of the practical exercises of the modules 2 to 5) + 10% presentation of the practical project to the class.

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.

If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

### Bibliography

#### Basic:

International Civil Aviation Organization. Annexes to the Convention on International Civil Aviation. Annex 14. Aerodromes. Montreal: ICAO, 1977. ISBN 9291942405.

Commission Regulation (EU) No 139/2014 of 12 February 2014.

Acceptable Means of Compliance (AMC) and Guidance Material (GM) [on line]. Brusel-les: EASA, 2016 [Consultation: 25/04/2018]. Available on: <<https://www.easa.europa.eu/document-library/acceptable-means-of-compliance-and-guidance-materials/group/part-nco---non-commercial-operations-with-other-than-complex-motor-powered-aircraft#group-table>>.

Real Decreto 862/2009, de 14 de mayo, por el que se aprueban las normas técnicas de diseño y operación de aeródromos de uso público y se regula la certificación de los aeropuertos de competencia del Estado [on line]. [Consultation: 17/11/2016]. Available on: <<https://www.boe.es/buscar/doc.php?id=BOE-A-2009-9043>>.

#### Others resources:

- Doc 9137. ICAO
- Doc 9156. ICAO
- Doc 9332. ICAO
- Doc 9734. ICAO
- Doc 9756. ICAO
- Doc 9774. ICAO