# 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

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Hours large group:</th>
<th>30h</th>
<th>24.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hours small group:</td>
<td>15h</td>
<td>12.00%</td>
</tr>
<tr>
<td></td>
<td>Self study:</td>
<td>80h</td>
<td>64.00%</td>
</tr>
</tbody>
</table>
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## Content

<table>
<thead>
<tr>
<th>Module</th>
<th>Description</th>
<th>Learning time</th>
<th>Related activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module 1: Introduction</strong></td>
<td>1. Basic concepts related to airport operations</td>
<td>6h</td>
<td>Theory classes: 3h&lt;br&gt;Self study: 3h</td>
</tr>
<tr>
<td><strong>Module 2: Airport infrastructure</strong></td>
<td>2. Operation of airport infrastructure</td>
<td>62h</td>
<td>Theory classes: 15h&lt;br&gt;Practical classes: 7h&lt;br&gt;Self study: 40h</td>
</tr>
<tr>
<td><strong>Module 3: Passenger process</strong></td>
<td>3. Flow of departure, arrival and connection for passengers. Human and material resources required</td>
<td>24h</td>
<td>Theory classes: 6h&lt;br&gt;Practical classes: 3h&lt;br&gt;Self study: 15h</td>
</tr>
<tr>
<td><strong>Module 4: Baggage process</strong></td>
<td>4. Flow of departure, arrival and connection for baggage. Human and material resources required</td>
<td>15h</td>
<td>Theory classes: 3h&lt;br&gt;Practical classes: 2h&lt;br&gt;Self study: 10h</td>
</tr>
</tbody>
</table>

**Related activities:**
- Practical exercise to analyze the impact of a new air operator to the airport in terms of the infrastructure
- Practical exercise to analyze the impact of a new air operator to the airport in terms of the Passenger process
- Practical exercise to analyze the impact of a new air operator to the airport in terms of the Baggage process
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.

**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

**Bibliography**

**Basic:**


**Others resources:**

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