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 SPACEx 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: 30h</th>
<th>24.00%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hours small group: 15h</td>
<td>12.00%</td>
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<tr>
<td></td>
<td>Self study: 80h</td>
<td>64.00%</td>
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## Content

### Module 1: Introduction

**Learning time:** 6h  
Theory classes: 3h  
Self study: 3h

**Description:**  
1. Basic concepts related to airport operations

### Module 2: Airport infrastructure

**Learning time:** 62h  
Theory classes: 15h  
Practical classes: 7h  
Self study: 40h

**Description:**  
2. Operation of airport infrastructure

**Related activities:**  
Practical exercise to analyze the impact of a new air operator to the airport in terms of the infrastructure

### Module 3: Passenger process

**Learning time:** 24h  
Theory classes: 6h  
Practical classes: 3h  
Self study: 15h

**Description:**  
3. Flow of departure, arrival and connection for passengers. 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 Passenger process

### Module 4: Baggage process

**Learning time:** 15h  
Theory classes: 3h  
Practical classes: 2h  
Self study: 10h

**Description:**  
4. Flow of departure, arrival and connection for baggage. 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 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.

Qualification system

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

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

Bibliography

Basic:


Others resources:

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