Course guide
205207 - APR - Airport Process Rethinking

Last modified: 19/04/2023

Unit in charge:	Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit:	758 - EPC - Department of Project and Construction Engineering.

Degree:	BACHELOR'S DEGREE IN AEROSPACE TECHNOLOGY ENGINEERING (Syllabus 2010). (Optional subject).
	BACHELOR'S DEGREE IN AEROSPACE VEHICLE ENGINEERING (Syllabus 2010). (Optional subject).

Academic year: 2023   **ECTS Credits:** 3.0   **Languages:** English

LECTURER

Coordinating lecturer:	Roca Ramon, Xavier
Others:	Galan Herranz, Jose Ignacio

TEACHING METHODOLOGY

The teaching methodology is divided in three parts:
• Presential sessions of exposition - participation of the contents and exercices realization.
• Presential sessions of laboratory work.
• Autonomous work of study and realization of exercices and activities.

LEARNING OBJECTIVES OF THE SUBJECT

Airport processes and procedures are carried out in the same way as from the beginning of commercial aviation. An example is the airplane handling, or even some, such as security have been complicated due to terrorist threats. The technology helps but times before the departure of a flight, or on arrival are still very high. The recommendation of the agents involved is "goto the airport with enough time". The study of these processes as they are carried out, the application of methodologies implemented in the production industry, as well as considering new alternatives will be studied and improved in the coming years.
The simulation will allow the staging and interaction between all the variables that influence the airport processes, concluding that improvement procedures can be applied and some process time can be optimize.
This objective leads us to carry out a study and understanding of the current airport processes, and the variables that influence the terminal building, and platform. We will obviate the optimization methods related to the airside capacity (runways/taxiways), and specifically the part corresponding to airspace, as well as the organization of aircraft arrivals and departures.

STUDY LOAD

Type	Hours	Percentage
Hours large group	30,0	40.00
Self study	45,0	60.00

Total learning time: 75 h

CONTENTS

INTRODUCTION

Description:
content english

Full-or-part-time: 2h
Theory classes: 1h
Self study : 1h

PASSENGERS. VARIABLES AND SCENARIOS

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

BAGGAGE HANDLING SYSTEMS, IATA RESOLUTION 753

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

AIRPLANE (RAMP OPERATION). STANDS ORGANIZATION

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

HANDLING / EQUIPMENT / AIRPLANE TURNAROUND

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

LOGISTICS

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

WORKERS / CONTRACTORS / SUPPLIERS

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

PARKING. DROPOFF / PICKUP AREAS / ROADS / PUBLIC TRANSPORT

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

SIMULATION: OBJETIVES

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

KEY POINTS TO IMPROVE. MAIN CONCLUSIONS

Description:
content english

Full-or-part-time: 4h
Theory classes: 2h
Self study : 2h

PROPOSAL OF THEORETICAL IMPROVEMENTS, AND PRACTICAL APPLICATION (AIRPORT VISIT). CUSTOMER EXPERIENCE

Description:
content english

Full-or-part-time: 14h
Theory classes: 7h
Self study : 7h

STUDENTS KEYNOTE

Description:
By groups participants will have chosen a process, or part of it, and will present the state of art and future proposals for its improvement

Full-or-part-time: 23h
Theory classes: 4h
Self study : 19h

GRADING SYSTEM

The qualification will consist on a final presentation that the students will do about all the work done continuously during the course. In groups they would have chosen a process, or a part of itself, and will expose the state of art process, and future purposes for its improvement.