Course guide
220304 - 220304 - Design and Construction of Airports

Last modified: 02/04/2024

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

Degree: MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Compulsory subject).

Academic year: 2024 **ECTS Credits:** 7.5 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Xavier Roca

Others:

Palacin Fornons, German
Vives Gene, David
Bruguera Arnes, Josep
Martin Sierra, Aitor
Martinez Sevillano, Ruben
Roca Ramon, Xavier

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
CE26. MUEA/MASE: An aptitude for carrying out master plans of airports and designing and supervising the construction of airport infrastructure, buildings and facilities.
CE27. MUEA/MASE: A capacity for planning, designing, building and managing airports and designing their electrical installations.
CE30. MUEA/MASE: Sufficient knowledge of the applications of cartography, geodesy, topography and geotechnics in airport and airport infrastructure design.
CE31. MUEA/MASE: The ability to carry out airport certification.
CG02-MUEA. (ENG) Capacitat per a planificar, projectar i controlar els processos de construcció d'infraestructures, edificis i instal·lacions aeroportuàries, així com el seu manteniment, conservació i explotació.
CG05-MUEA. (ENG) Capacitat per analitzar i corregir l'impacte ambiental i social de les solucions tècniques de qualsevol sistema aeroespacial.
CG06-MUEA. (ENG) Capacitat per a l'anàlisi i la resolució de problemes aeroespacials en entorns nous o desconeguts, dins de contextos amplis i complexos.
CG08-MUEA. (ENG) Competència per al projecte de construccions i instal·lacions aeronàutiques i espacials, que requereixin un projecte integrat de conjunt, per la diversitat de les seves tecnologies, la seva complexitat o pels amplis coneixements tècnics necessaris.
CG09-MUEA. (ENG) Competència en totes aquelles àrees relacionades amb les tecnologies aeroportuàries, aeronàutiques o espacials que, per la seva naturalesa, no siguin exclusives d'altres branques de l'enginyeria.
CG10-MUEA. (ENG) Coneixement, comprensió i capacitat per aplicar la legislació necessària en l'exercici de la professió d'Enginyer Aeronàutic.

Transversal:
CT1a. ENTREPRENEURSHIP AND INNOVATION: Being aware of and understanding how companies are organised and the principles that govern their activity, and being able to understand employment regulations and the relationships between planning, industrial and commercial strategies, quality and profit.

CT2. SUSTAINABILITY AND SOCIAL COMMITMENT: Being aware of and understanding the complexity of the economic and social phenomena typical of a welfare society, and being able to relate social welfare to globalisation and sustainability and to use technique, technology, economics and sustainability in a balanced and compatible manner.

Basic:
CB06. Manage original concepts in research projects.
CB07. Student capacity to use their knowledge in new and multidisciplinary situations.
CB08. Generate decision from incomplete information assuming its social and ethical responsibilities.
CB10. Improve self-learning capacity

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

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STUDY LOAD

Type	Hours	Percentage
Self study	120,0	64.00
Hours large group	45,0	24.00
Hours small group	22,5	12.00

Total learning time: 187.5 h

CONTENTS

title english

Description:
content english

Full-or-part-time: 10h
Theory classes: 5h
Self study : 5h

title english

Description:
content english

Full-or-part-time: 65h
Theory classes: 16h
Laboratory classes: 9h
Self study : 40h

title english

Description:
content english

Full-or-part-time: 46h
Theory classes: 5h
Laboratory classes: 6h
Self study : 35h

title english

Description:
content english

Full-or-part-time: 66h 30m
Theory classes: 14h
Laboratory classes: 12h 30m
Self study : 40h

GRADING SYSTEM