

SUBJECT TEACHING GUIDE

M1447 - Roads and Airports

Master's Degree in Civil Engineering

Academic year 2019-2020

1. IDENTIFYING DATA					
Degree	Master's Degree in Civil Engineering			Type and Year	Compulsory. Year 1
Faculty	School of civil Engineering				
Discipline	Transport Infrastructures				
Course unit title and code	M1447 - Roads and Airports				
Number of ECTS credits allocated	3	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	MIGUEL ANGEL CALZADA PEREZ				
E-mail	miguel.calzada@unican.es				
Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 0. DESPACHO (0076)				
Other lecturers	ANGEL VEGA ZAMANILLO				

3.1 LEARNING OUTCOMES

- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.
- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.
- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.
- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.
- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.
- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.
- Basic knowledge of airports.
 - Allow to analyze the level of service in ramps, weaving areas, and long segments of highways.
 - To acquire knowledge that will facilitate planning and rehabilitation of roads .
 - Design of pavements.

4. OBJECTIVES

- Improve previous knowledges of roads and acquire basic knowledge of airports
- Improve previous knowledges of roads and acquire basic knowledge of airports
- Improve previous knowledges of roads and acquire basic knowledge of airports
- Improve previous knowledges of roads and acquire basic knowledge of airports
- Improve previous knowledges of roads and acquire basic knowledge of airports
- Improve previous knowledges of roads and acquire basic knowledge of airports
- Improve previous knowledges of roads and acquire basic knowledge of airports

6. COURSE ORGANIZATION

CONTENTS	
1	Planning of roads Safety Barriers and Roadside Furniture Highways Ramps Weaving áreas Roads Pathology
2	Road Inspection Service Airports Design of pavements Concrete pavements Road rehabilitation

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
The first part theory exam	Written exam	No	Yes	30,00
The second part theory exam	Written exam	No	Yes	30,00
Exercises	Written exam	Yes	Yes	40,00
TOTAL				100,00
Observations				
-To calculate the average, it is necessary to have obtained a note 3.5 minimum in each of the three activities. -The procedure of evaluation of an activity in September will be the same as the one of the same activity in June. -In September, the student will be submitted to activities that have not been achieved a note equal to or greater than 5.0 above. -To calculate the final note of the course, both in June and in September, the last note obtained in each activity shall be considered.				
Observations for part-time students				
-Part-time students can examine the three blocks in June and September calls; but if they so wish they may submit to the two partial theory prior to the final exam in June.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

Apuntes
Normativa española vigente de carreteras

Apuntes
Normativa española vigente de carreteras

Apuntes
Normativa española vigente de carreteras

Apuntes
Normativa española vigente de carreteras

Apuntes
Normativa española vigente de carreteras

Apuntes
Normativa española vigente de carreteras

Apuntes
Normativa española vigente de carreteras