

SUBJECT TEACHING GUIDE

G1174 - Further Transport Infrastructures

Degree in Civil Engineering

Academic year 2019-2020

1. IDENTIFYING DATA					
Degree	Degree in Civil Engineering			Type and Year	Optional. Year 4
Faculty	School of civil Engineering				
Discipline	Optional Subjects: Curricular Itinerary 3				
Course unit title and code	G1174 - Further Transport Infrastructures				
Number of ECTS credits allocated	6	Term	Semester based (2)		
Web					
Language of instruction	Spanish	English Friendly	Yes	Mode of delivery	Face-to-face

Department	DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS				
Name of lecturer	BORJA ALONSO OREÑA				
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Office	E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 1. DESPACHO (1008)				
Other lecturers	ENEKO ECHANIZ BENEITEZ				

3.1 LEARNING OUTCOMES
- Sizing infrastructure of grade separated transit systems
- Designing and sizing complementary infrastructures of grade separated transit systems: stops and platforms
- Track/busway geometry
- Grade separated transit systems: Capacity and Level of Service
- Simulation based analysis of grade separated transit systems operations.

4. OBJECTIVES

Grade Separated urban transit system sizing and planning
Fundamentals on grade separated urban transit design; quality of service
Knowledge on simulation based tools for operational analysis of transit systems

6. COURSE ORGANIZATION

CONTENTS	
1	Introduction to grade separated urban transit systems
2	Sizing, design and construction part I: platform
3	Track/ platform geometry
4	Sizing, design and construction part II: bus stops and stations
5	Signalling
6	Exploitation, capacity and level of service
7	Construction and exploitation costs
8	Workshop on grade separated urban transit systems simulation and design.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Classroom exercises	Work	No	Yes	40,00
Final deliverable	Work	No	Yes	60,00
TOTAL				100,00
Observations				
Final deliverable is mandatory to pass the course				
Observations for part-time students				
Part time students must justify their status. Final deliverable is mandatory to pass the course.				

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC
Alonso, B. (2019) "Ampliación de Infraestructuras de Transporte" Apuntes de la asignatura