UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: TRANSPORT ECONOMICS
Code: 310809
Type: CORE COURSE
ECTS credits: 4.5
Degree: 2343 - MASTERS DEGREE PROGRAMME IN ENGINEERING OF ROADS, CANALS AND PORTS
Academic year: 2020-21
Center: 603 - E.T.S. CIVIL ENGINEERS OF CR
Group(s): 20
Year: 1
Duration: C2
Main language: English
Second language: Spanish
Use of additional languages:
English Friendly: N
Web site:
Bilingual: N

Lecturer: **JOSE MARIA MENENDEZ MARTINEZ** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Politécnico	INGENIERÍA CIVIL Y DE LA EDIFICACIÓN	3272	josemaria.menendez@uclm.es	It will be fixed in the first week according to the students' calendar

Lecturer: **ANA MARIA RIVAS ALVAREZ** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Politécnico 2-A49	INGENIERÍA CIVIL Y DE LA EDIFICACIÓN	926051938	ana.rivas@uclm.es	It will be fixed in the first week according to the students' calendar

Lecturer: **SANTOS SANCHEZ CAMBRONERO GARCIA MORENO** - Group(s): **20**

Building/Office	Department	Phone number	Email	Office hours
Politécnico /2-A47	INGENIERÍA CIVIL Y DE LA EDIFICACIÓN	926052819	santos.sanchez@uclm.es	It will be fixed in the first week according to the students' calendar

2. Pre-Requisites

It would be advisable to have a basic knowledge of some mathematical tools optimization program (Mathematica, Matlab, GAMS).

3. Justification in the curriculum, relation to other subjects and to the profession

Basic training for the curriculum of students in the infrastructure and transport services area. The course deals with a set of specific topics unrelated to other sectors in which the link is the tools for optimisation and the mathematical formalisation of some of the problems inherent to the business management of the transport area.

4. Degree competences achieved in this course

Course competences

Code	Description
CB06	Possess and understand knowledge that provides a basis or opportunity to be original in the development and / or application of ideas, often in a research context.
CB07	Apply the achieved knowledge and ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the area of study
CB09	Know how to communicate the conclusions and their supported knowledge and ultimate reasons to specialized and non-specialized audiences in a clear and unambiguous way
G21	Ability to apply optimization tools to aid decision making, as well as to discern exploitation proposals compatible with the constraints and peculiarities of the built infrastructure.
G25	Ability to identify, measure, enunciate, analyse, diagnose and scientifically and technically describe a civil engineering problem
G26	Capacity to apply business management and labour law
G27	Ability to communicate in a second language.
TE08	Knowledge of transport engineering and planning, transport functions and modes, urban transport, management of public transport services, demand, costs, logistics and financing of transport infrastructure and services.
TE10	Capacity for planning, management and operation of civil engineering related infrastructures.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

Students identify the participation of transport in the logistics sector.
Students can solve the problems typical of the management and operation of transport services from the scope of the operating company.
Students can solve the problems typical of planning, management and operation of transport from the scope of the administration.
Students know and understand the transport market.
Students are familiar with the organization of transportation.
Students are familiar with the management systems of a transport company.
Students know the economic costs and externalities of transport.

6. Units / Contents

Unit 1: Spanish Transport System
Unit 2: Economic Transport Costs
Unit 3: External Costs and Benefits of Transport Infrastructure
Unit 4: Financing Transport Services
Unit 5: Taxation Transport
Unit 6: Public Transport Services Management
Unit 7: Transport Services Companies Characterization
Unit 8: Marketing applied to Transport Services
Unit 9: Logistic

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB06 G26 G27 TE08 TE10	0.72	18	Y	N	
Class Attendance (practical) [ON-SITE]	Project/Problem Based Learning (PBL)	CB06 CB07 CB09 G26 G27 G28 TE08 TE10	0.24	6	Y	Y	
Project or Topic Presentations [ON-SITE]		CB07 CB09 G27	0.16	4	Y	Y	
Computer room practice [ON-SITE]	Problem solving and exercises	CB06 CB07 TE08 TE10	0.13	3.25	Y	Y	
Progress test [ON-SITE]	Assessment tests	CB06 CB07 CB09 G26 G27 G28 TE08 TE10	0.1	2.5	Y	Y	
Study and Exam Preparation [OFF-SITE]	Self-study	CB06 CB07 CB09 G26 G27 G28 TE08 TE10	1.32	33	Y	N	
Writing of reports or projects [OFF-SITE]	Problem solving and exercises	CB06 CB07 CB09 G26 G27 G28 TE08 TE10	1.83	45.75	Y	Y	
		Total:	**4.5**	**112.5**			
		Total credits of in-class work: 1.35					**Total class time hours: 33.75**
		Total credits of out of class work: 3.15					**Total hours of out of class work: 78.75**

As: Assessable training activity
Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Final test	0.00%	50.00%	
Final test	0.00%	50.00%	
Progress Tests	40.00%	0.00%	
Assessment of problem solving and/or case studies	40.00%	0.00%	
Oral presentations assessment	10.00%	0.00%	
Assessment of active participation	10.00%	0.00%	
Total:	**100.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

Exceptionally, a final exam may be taken for those students who have not reached the minimum level required to pass the course. This exam consists of an oral test in which the student will answer questions related to the work done by him/her during the course and a written test on terminology associated with the content of the course.

Non-continuous evaluation:

Evaluation criteria not defined

Specifications for the resit/retake exam:

The same as in the ordinary one.

9. Assignments, course calendar and important dates

Not related to the syllabus/contents

Hours	**hours**
Unit 1 (de 9): Spanish Transport System	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	1.5
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Project or Topic Presentations [PRESENCIAL][]	1
Study and Exam Preparation [AUTÓNOMA][Self-study]	3.3
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	5

Unit 2 (de 9): Economic Transport Costs	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	3.3
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	4
Unit 3 (de 9): External Costs and Benefits of Transport Infrastructure	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	1.5
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Progress test [PRESENCIAL][Assessment tests]	.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	3
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	5
Unit 4 (de 9): Financing Transport Services	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	1.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	3
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	4
Unit 5 (de 9): Taxation Transport	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	1.5
Progress test [PRESENCIAL][Assessment tests]	.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	3
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	4
Unit 6 (de 9): Public Transport Services Management	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	1.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	3
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	4
Unit 7 (de 9): Transport Services Companies Characterization	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Project or Topic Presentations [PRESENCIAL][]	.75
Computer room practice [PRESENCIAL][Problem solving and exercises]	.5
Progress test [PRESENCIAL][Assessment tests]	.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	4.5
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	5
Unit 8 (de 9): Marketing applied to Transport Services	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Project or Topic Presentations [PRESENCIAL][]	.75
Computer room practice [PRESENCIAL][Problem solving and exercises]	1
Study and Exam Preparation [AUTÓNOMA][Self-study]	4.5
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	5
Unit 9 (de 9): Logistic	
Activities	**Hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	1
Project or Topic Presentations [PRESENCIAL][]	.75
Computer room practice [PRESENCIAL][Problem solving and exercises]	1
Progress test [PRESENCIAL][Assessment tests]	.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	2.1
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	4.75
Global activity	
Activities	**hours**
Class Attendance (theory) [PRESENCIAL][Lectures]	16.5
Class Attendance (practical) [PRESENCIAL][Project/Problem Based Learning (PBL)]	5
Project or Topic Presentations [PRESENCIAL][]	3.25
Computer room practice [PRESENCIAL][Problem solving and exercises]	2.5
Progress test [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	29.7
Writing of reports or projects [AUTÓNOMA][Problem solving and exercises]	40.75
Total horas:	99.7

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
BRUTON, M. J.	Introduction to Transportation Planning	Hutchinson	London	0090986202	1988	

Button, Kenneth	Transport Economics	Edward Elgar Fundación		1-85278-523-3	1993
Colomer Ferrándiz, José V.	Centros integrados de mercancias: una visión global	Instituto Valenciano de Estudios de Tran		84-921119-0-9	1995
FAULKS, Rex W.	Principles of Transport	McGraw-Hill		0711004722	1990
FRYBOURG, M.	Enseignement Supérieur de Transport,	Paradigme	Caen, Francia	2868780121	1991
Izquierdo de Bartolomé, Rafael	transportes un enfoque integral	Servicio de publicaciones CICCP	Madrid	9788474932119	1994
Manheim, m	Fundamentals of Transportation Systems Analysis	M.I.T. Press, Series of Transportation Studies,	USA	9780262632898	1979
Papacostas, C. S.	Transportation engineering and planning	Prentice Hall		0-13-081419-9	2001
Potrykowski, Marek	Geografía del transporte	Ariel		84-344-3440-7	1984
Quinet, Emile	Principes d'économies des transports	Economica		2-7178-3703-5	1998
Quinet, Emile	Économie des transports	Economica		2-7178-0508-7	1982
Thomson, J. M.	Teoría económica del transporte	Alianza		84-206-2153-6	1976