Course guide
2500055 - GECLOURBTT - Urban Logistics and Transport Terminals

Last modified: 01/10/2023

Unit in charge: Barcelona School of Civil Engineering
Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering.

Degree: BACHELOR'S DEGREE IN CIVIL ENGINEERING (Syllabus 2020). (Optional subject).

Academic year: 2023 **ECTS Credits:** 4.5 **Languages:** Spanish

LECTURER

Coordinating lecturer: JOSÉ MAGÍN CAMPOS CACHEDA

Others: JOSÉ MAGÍN CAMPOS CACHEDA

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
14422. Capacity for the construction and conservation of roads, as well as for the dimensioning, the project and the elements that make up the basic road equipment. (Specific technology module: Urban Transport and Services)
14423. Capacity for the construction and conservation of railway lines with knowledge to apply specific technical regulations and differentiating the characteristics of the mobile material. (Specific technology module: Urban Transport and Services)
14424. Knowledge of the urban management regulation framework. (Specific technology module: Urban Transport and Services)
14425. Knowledge of the influence of infrastructure in the planning of the territory and to participate in the urbanization of urban public space, such as water distribution, sanitation, waste management, transport systems, traffic, lighting, etc. (Specific technology module: Urban Transport and Services)
14426. Knowledge of the design and operation of infrastructures for modal exchange, such as ports, airports, railway stations and transport logistics centers. (Specific technology module: Urban Transport and Services)

Generical:
14380. Scientific-technical training for the exercise of the profession of Technical Engineer of Public Works and knowledge of the functions of advice, analysis, design, calculation, project, construction, maintenance, conservation and exploitation.
14383. Ability to project, inspect and direct works, in their field.
14385. Ability to carry out territorial planning studies and environmental aspects related to infrastructure, in its field.
14386. Capacity for maintenance, conservation and exploitation of infrastructure, in its field.
14390. Identify, formulate and solve engineering problems. Pose and solve construction engineering problems with initiative, decision-making skills and creativity. Develop a systematic and creative method of analysis and problem solving. (Additional school competition).

TEACHING METHODOLOGY

Master classes combined with practical cases.

Although most of the sessions will be given in the language indicated, sessions supported by other occasional guest experts may be held in other languages.

LEARNING OBJECTIVES OF THE SUBJECT

Introduction to Logistics and Supply Chain Management. New technologies applied to logistics. Urban distribution of merchandise. Transport Terminals by road, for the rail transport, for air transport, for maritime transport.

1 Ability to analyze all aspects related to urban logistics and transport terminals: routing and transport economics,
Logistics and terminals.

Analyze all aspects related to urban logistics and transport terminals. This subject is divided into two large blocks: on the one hand, tools are provided for the analysis of problems such as routing and transportation economics; and, on the other hand, informative training on logistics and terminals is given, entering into the key points, the usual problems and professional practices. The contents of the subject are: Introduction (Concept of Logistics. Logistics in the transport company). Location of warehouses and inventory management. Route design. Supply Chain Management. Transport of goods. Intermodal transport. Urban logistics. Introduction to transport terminals and analysis tools. Transport terminals: Road and Intermodal. Logistics centers. Exchangers. Transport terminals: Road, Railway, Ports, Airports. Sustainability and logistics. New communication and information technologies applied to logistics

STUDY LOAD

Type	Hours	Percentage
Self study	63,0	56.00
Hours large group	22,5	20.00
Hours medium group	22,5	20.00
Guided activities	4,5	4.00

Total learning time: 112.5 h

CONTENTS

Logistics

Description:
Logistics. Transport logistics. Economic spaces. Logistics concept. Trade-offs. Networks. Road transport. Merchandise transports. Logistics operators. Logistics potential. Logistics Management. Strategic logistics.
Location of production and storage centers. Design of delivery routes. Logistic configuration. Stocks. Decentralization degree.
Practical applications
Basic concepts. Main distribution strategies. Inventory management.
Practical applications
Market and sector description. Intermodal transportation. Exchangers.
Cities as service provider business units.
Practical applications

Full-or-part-time: 52h 48m
Theory classes: 11h
Practical classes: 11h
Self study : 30h 48m

Terminals

Description:
Components. Functional design. Theory of tails
traffic, trends, SSS, container management, quality, rates, internal transport, maritime passenger station, etc.
Accesses, form of terminals, check-in, baggage management, capacity of subsystems.
lay-out. Processes. Examples. Main characteristics of the railway sector.
Integrated Merchandise Centers and Logistics Activity Zones. Necessity, dimensioning and functional design, economic effects.
Practical applications

Full-or-part-time: 55h 12m
Theory classes: 11h 30m
Practical classes: 11h 30m
Self study : 32h 12m

GRADING SYSTEM

The grade of the subject is obtained from the continuous evaluation grades. Continuous assessment consists of doing different activities, both individual and group, of an additive and formative nature, carried out during the course (inside and outside the classroom). The assessment tests consist of a part with questions about concepts associated with the learning objectives of the subject in terms of knowledge or understanding, and a set of application exercises.

Continuous evaluation grade (E), home course work (T). Final grade = 0,7 * E + 0,3 * T

Qualification criteria and admission to reevaluation: Students suspended in the ordinary evaluation who have regularly taken the evaluation tests of the suspended subject will have the option to take a reevaluation test in the period set in the academic calendar. Students who have already passed it or students qualified as not presented may not take the reevaluation test of a subject. The maximum grade in the case of taking the reevaluation exam will be five (5.0). The non-attendance of a student summoned to the reevaluation test, held in the established period, may not give rise to another test with a later date.

Extraordinary evaluations will be carried out for those students who, due to accredited force majeure, have not been able to carry out any of continuous assessment tests. These tests must be authorized by the corresponding head of studies, at the request of the professor responsible for the subject, and will be carried out within the corresponding school period.

EXAMINATION RULES.

If any of the continuous assessment activities are not carried out in the scheduled period, it will be considered as a zero score.

BIBLIOGRAPHY

Basic:
- Ballou, Ronald H. Logística empresarial : control y planificación. 1. Barcelona: Díaz de Santos, 1991. ISBN 8487189687.
- Robusté, F. Logística del transporte [on line]. Barcelona: Edicions UPC, 2005 [Consultation: 29/04/2020]. Available on: http://hdl.handle.net/2099.3/36671. ISBN 8483017733.