Course guide
2500055 - GECLOURBTT - Urban Logistics and Transport Terminals

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: 2022   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.

TEACHING METHODOLOGY

The course consists of 1.5 hours per week of classroom activity (large size group) and 1.5 hours weekly with half the students (medium size group).

The 1.5 hours in the large size groups are devoted to theoretical lectures, in which the teacher presents the basic concepts and topics of the subject, shows examples and solves exercises.

The 1.5 hours in the medium size groups is devoted to solving practical problems with greater interaction with the students. The objective of these practical exercises is to consolidate the general and specific learning objectives.

Support material in the form of a detailed teaching plan is provided using the virtual campus ATENEA: content, program of learning and assessment activities conducted and literature.
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

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Guided activities</td>
<td>4,5</td>
<td>4.00</td>
</tr>
<tr>
<td>Self study</td>
<td>63,0</td>
<td>56.00</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>22,5</td>
<td>20.00</td>
</tr>
<tr>
<td>Hours large group</td>
<td>22,5</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Total learning time: 112.5 h

CONTENTS

Logistics

Description:
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.
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 mark of the course is obtained from the ratings of continuous assessment and their corresponding laboratories and/or classroom computers.

Continuous assessment consist in several activities, both individually and in group, of additive and training characteristics, carried out during the year (both in and out of the classroom).

The teachings of the laboratory grade is the average in such activities.

The evaluation tests consist of a part with questions about concepts associated with the learning objectives of the course with regard to knowledge or understanding, and a part with a set of application exercises.

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: