

SUBJECT TEACHING GUIDE

M2154 - Logistics

Master's Degree in civil Engineering, Canal and Port Engineering

Academic year 2022-2023

1. IDENTIFYING DATA

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|----------------------------------|--|------------------|--------------------|------------------|------------------|
| Degree | Master's Degree in civil Engineering, Canal and Port Engineering | | | Type and Year | Optional. Year 1 |
| Faculty | School of civil Engineering | | | | |
| Discipline | CROSS CURRICULAR EDUCATION | | | | |
| Course unit title and code | M2154 - Logistics | | | | |
| Number of ECTS credits allocated | 3 | Term | Semester based (2) | | |
| Web | | | | | |
| Language of instruction | Spanish | English Friendly | No | Mode of delivery | Face-to-face |

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| Department | DPTO. TRANSPORTES Y TECNOLOGIA DE PROYECTOS Y PROCESOS |
| Name of lecturer | JOSE MARIA DIAZ PEREZ DE LA LASTRA |
| E-mail | josemaria.diaz@unican.es |
| Office | E.T.S. de Ingenieros de Caminos, Canales y Puertos. Planta: + 1. DESPACHO (1007) |
| Other lecturers | |

3.1 LEARNING OUTCOMES

- Know the basic foundations of the freight transport system, as well as the concept of logistics and its implications
- Master the fundamental principles of the supply and physical distribution system, and their application to the civil Engineering

4. OBJECTIVES

- To deepen the comprehension of logistics as an element of competitiveness in the business environment and in civil engineering in particular.
- To deepen the knowledge of supply, production and distribution strategies with a current focus on company-market relationship
- Knowledge of the problems of the management and location of storage activities and introduce the problem of distribution network design

6. COURSE ORGANIZATION

| CONTENTS | |
|----------|--|
| 1 | FOUNDATIONS OF LOGISTICS.- The current environment of the company. Guidelines of market. The logistics system. Logistics as a source of competitiveness. |
| 2 | LOGISTICS AND PRODUCTION MANAGEMENT. Just in Time. Inventory management. Interactions with supply and distribution systems. |
| 3 | THE PURCHASING SYSTEM. The importance of purchases in logistics planning. Decisions on purchases. Search of suppliers. Supplier evaluation and homologation. Negotiation in purchases. |
| 4 | THE PHYSICAL DISTRIBUTION SYSTEM.- Physical distribution organization. The concept of total cost. the effect of physical distribution on business organization. Level of service. Introduction to the routing problem. |
| 5 | STORAGE ACTIVITY.- Storage policies. Warehousing and Logistics planning. Number and location. Location of warehousing activities. |

7. ASSESSMENT METHODS AND CRITERIA

| Description | Type | Final Eval. | Reassessn | % |
|---|--------|-------------|-----------|--------|
| Work | Work | No | Yes | 50,00 |
| Exercises and case studies | Others | No | Yes | 20,00 |
| Face-to-face activity in the classroom | Others | No | No | 30,00 |
| TOTAL | | | | 100,00 |
| Observations | | | | |
| In case of a new health alarm by COVID-19 and if the guidelines of the health and educational authorities do not allow face-to-face evaluation in the classroom, a remote evaluation system will be adopted | | | | |
| Observations for part-time students | | | | |
| Part-time students will have to do the Work, the practical exercises and case studies. They will also take a written exam with a weight in the final grade of 30%. | | | | |

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

- Apuntes de la Asignatura
- Ballou, R.H. 1991. Logística empresarial. Ed. Díaz de Santos.
- Ballou, R.H. 2004. Logística. Administración de la cadena de suministro. Ed. Pearson, Prentice Hall.
- O'Grady, P.J. 1992. Just-in-Time. Mc Graw Hill. Madrid.

