

Course guide

280681 - 280681 - Port Management and Planning of Transport

Last modified: 28/07/2025

Unit in charge: Barcelona School of Nautical Studies

Teaching unit: 751 - DECA - Department of Civil and Environmental Engineering.

Degree: BACHELOR'S DEGREE IN NAUTICAL SCIENCE AND MARITIME TRANSPORT (Syllabus 2010). (Optional subject).

Academic year: 2025

ECTS Credits: 6.0

Languages: Spanish

LECTURER

Coordinating lecturer: José Magín Campos Cacheda

Others: José Magín Campos Cacheda

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. Ability to solve math problems that may arise in engineering. Ability to apply knowledge about: linear algebra, geometry, differential geometry to, differential and integral calculus, differential equations and partial differential, numerical methods, algorithmic numerical and statistical optimization.
2. Adequate knowledge of the concept of business, institutional and legal framework of the company. Organization and management of corporate finance firms and turtles.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

To ensure a thorough knowledge and understanding of port and terminal management.
Understand the effect of globalisation on port choice and how changes in logistics and distribution patterns influence the development or decline of ports.
Be aware of the location of major world ports in liner, dry bulk and liquid trades.
Understand the enhanced role of ports in a through transport context – hub ports, feeder/transshipment ports, intermodal interfaces.
Be aware of the role of national, regional and local government in port provision.
Understand the different forms of the ownership structure of ports and of port services; public/private, landlord only, full or part service provider, terminal facilities within ports.
Understand the nature of port competition, national and international
Understand what is meant by port buildings, transit sheds, warehouses, maintenance workshops, amenity buildings, offices for port users etc.
Understand the different cargo-handling equipment, types, their costs and the need for maintenance management.
Understand how future changes in vessel size and cargo-handling techniques will impact on procurement and materials management.

STUDY LOAD

| Type | Hours | Percentage |
|-------------------|-------|------------|
| Self study | 90,0 | 60.00 |
| Hours large group | 60,0 | 40.00 |

Total learning time: 150 h

CONTENTS

(ENG) Introducció

(ENG) Condicionants externs I. Comerç internacional i globalització

(ENG) Condicionants externs II. Principals característiques de la indústria marítima

(ENG) Introducció a la gestió portuària

(ENG) Enginyeria portuària i hidrodinàmica marítima

(ENG) Economia portuària

(ENG) Models de gestió i finançament de ports

(ENG) Eines de planificació i gestió en ports

(ENG) Terminals portuàries

(ENG) Condicionants a la gestió. mediambient, seguretat i relació port-ciutat

(ENG) Política portuària i elements actuals de planificació portuària

GRADING SYSTEM

Final Mark = 1st Partial * 0.3 + 2nd Partial * 0.3 + Course Project *0.4

BIBLIOGRAPHY

Basic:

- Burns, Maria G.. Port management and operations. Boca Ratón: CRC Press, 2014. ISBN 9781482206753.