Universidad Europea VALENCIA

1. OVERVIEW

Subject area	Logistics Engineering
Degree	Bachelor's Degree in Industrial Organisation Engineering
School/Faculty	Faculty of Science, Engineering and Design
Year	3
ECTS	4.5
Type	Compulsory
Language(s)	Spanish
Delivery Mode	On campus
Semester	1

2. INTRODUCTION

From the early 90s until now, the maritime transport sector, which includes ports, has seen continuous growth. This is due to the liberation of international trade and the displacement of traditional production centres - all known to us as globalisation. Port authorities appear to have played a new role in this global world which has helped accelerate the exchange of goods, multiplying transport flow, and creating a hitherto unknown pressure to improve and build new infrastructure.

Besides this globalisation phenomenon, changes to the demand for maritime transport services have been due to several other factors.

- Diversity of products: more elaborated products of greater added value, reduced stock levels and high rotation, and more frequent shipping of smaller sizes.
- Globalisation of production cycles: production centres far from consumption areas and different production stages in different geographical areas. For every dollar manufactured around the world, 70 cents comes from China.
- Sub-contracting of logistics services: the costs of logistics (transport) have become more variable. Manufacturers release their own resources which they invest in their main activity. There is an ever-greater need for operators who can offer a multidimensional service (door to door).

In this subject, students gain greater knowledge of logistics management including the different methods of planning and execution and good practices so they have the skills to adapt to and overcome the different challenges they will face in their careers.

3. SKILLS AND LEARNING OUTCOMES

Basic skills (CB, by the acronym in Spanish):

- CB2 - Students can apply their knowledge to their work or vocation in a professional manner and possess the skills which are usually evident through the forming and defending of opinions and resolving problems within their study area.
- CB4 - Students can communicate information, ideas, problems and solutions to both a specialist and non-specialist audience.

- CB5 - Students have developed the learning skills necessary to undertake further study in a much more independent manner.

Cross-curricular skills (CT, by the acronym in Spanish):
- CT1 - Ethical values: ability to think and act in line with universal principles based on the value of a person, contributing to their development and involving commitment to certain social values.
- CT2 - Independent learning: skills for choosing strategies to search, analyse, evaluate and manage information from different sources, as well as to independently learn and put into practice what has been learnt.
- CT3 - Teamwork: ability to integrate and collaborate actively with other people, areas and/or organisations to reach common goals.
- CT4 - Written/spoken communication: ability to communicate and gather information, ideas, opinions and viewpoints to understand and be able to act, spoken through words or gestures or written through words and/or graphic elements.
- CT5 - Analysis and problem-solving: be able to critically assess information, break down complex situations, identify patterns and consider different alternatives, approaches and perspectives in order to find the best solutions and effective negotiations.
- CT6 - Adapting to change: be able to accept, consider and integrate different perspectives, adapting your own approach as required by the situation at hand, and to work effectively in ambiguous situations.
- CT8 - Entrepreneurial spirit: ability to take on and carry out activities that generate new opportunities, foresee problems or lead to improvements.

Specific skills (CE, by the acronym in Spanish):
- CE18 - Ability to organise, complete and defend a project in the field of industrial organisation engineering.

Learning outcomes (RA, by the acronym in Spanish):
- RA1 - Solve problems regarding optimisation, planning of demand, supply and materials management in a productive system.
- RA2 - Solve assignment and transport issues, problems in the decision-making process, and manage inventories and queue management.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes (RA, by the acronym in Spanish)
CB1, CB2, CT1, CT2, CT3, CT5, CE7	RA1
CB2, CB4, CB5, CT1, CT2, CT3, CT4, CT5, CT6, CT8, CE18	RA2

4. CONTENTS

Unit 1 - Supply and storage.

Unit 2 - Inventory management.

Unit 3 - Transport and route management.

Unit 4 - Distribution networks.

Unit 5 - Inverse logistics.

Unit 6 - Logistics in the smart industry.

5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:
- Master lectures
- Case study
- Collaborative learning
- Problem-based learning
- Project-based learning
- Field work (field trips, work experience)

6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

Learning activity	Number of hours
Master lectures and practical seminars	19
Problem-solving	12
Case studies and field studies	5
Laboratory work	18
Debates and discussions	6
Learning contract (definition of interests, needs and objectives)	2
Autonomous learning	44
Tutorials	5
Knowledge tests	1.5
TOTAL	112.5

7. ASSESSMENT

The assessment systems, plus their weighting in the final grade for the subject area, are as follows:

Assessment system	Weighting
Knowledge tests [On Campus tests to assess theory/practical learning]	50%

Activities and challenges [On Campus tests to assess theory/practical learning + distance tests to assess theory/practical learning]	30%
Peer-assessment [Self- and peer-assessment + attitude appraisal tests]	10%
Performance Attitude assessment tests (attitude assessment rubrics, class participation)	10%

8. BIBLIOGRAPHY

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