

General Information	
Academic subject	Logistics and Maintenance in Port Industry
Degree course	
Curriculum	
ECTS credits	6
Compulsory attendance	
Language	

Subject teacher	Name Surname	Mail address	SSD
	Giovanni Mummolo	giovanni.mummolo@uniba.it	ING/IND17

ECTS credits details	Area		CFU/ETCS
Basic teaching activities	09/B2		6

Class schedule	
Period	2nd semester
Year	II year
Type of class	Lecture

Time management	
Hours	150
In-class study hours	48
Out-of-class study hours	102

Academic calendar	
Class begins	
Class ends	

Syllabus	
Prerequisites/requirements	
Expected learning outcomes	<p><i>Knowledge and understanding on:</i></p> <ul style="list-style-type: none"> ○ the course provides the knowledge for identifying the main aspects of the logistics and maintenance in the maritime sector referring to the evaluation of the strategies and more efficient mode of transportation. The course is focused on the supplies' management in industrial warehouses, stoking solution adopted, inbound/outbound material handling strategies as well as techniques for analysis and monitoring of maintenance processes. <p><i>Applying knowledge and understanding on:</i></p> <ul style="list-style-type: none"> ○ the course by analysis of case studies will provide the students with evaluation tools allowing to quantify the efficiency of different logistics models and maintenance processes. For each case, the student will identify the more convenient strategy based on the existing constraints, decision variables, and parameters to be optimized. <p><i>Making informed judgments and choices:</i></p> <ul style="list-style-type: none"> ○ by studying different logistics approaches referred to the alternative scenarios, the student will improve judgement capacity and be able to identify the best solutions for each case. The solutions will allow optimizing the logistics flow management of the good, considering its characteristics, maintenance constraints and the expected results of the stakeholders

	<p><i>Communicating knowledge and understanding</i></p> <ul style="list-style-type: none"> ○ The description of logistics' aspects of the strategy of maintenance and warehouse's management, will enable the student to acquire a specialized terminology; the development of communicative skills will be also assessed by the final exam <p><i>Capacities to continue learning</i></p> <ul style="list-style-type: none"> ○ The learning capability by slides and classroom debate will be promoted to check the effectiveness comprehension of the topics investigated. The learning capability by integrative learning tools (official documents, stats, numerical exercise, and case studies), will be promoted to develop the applicative capabilities
<p>Contents</p>	<ul style="list-style-type: none"> • Introduction. • An overview of logistic solutions and requirements for production processes. • Transport systems for internal logistic. Classification: manual and automatic systems, special-purpose vehicles and equipment, installations and machines. • Technical features of internal logistic systems: operating features, operation and maintenance costs, purchase criteria; special-purpose equipment and fittings; installation and management, operation costs analysis, safety topics. • Industrial warehouses: technical and managerial matters: the warehouse importance in industrial plants; loading units; manual and automated warehouses; optimization problems in warehouses design; stock management principles; information systems and procedures for warehouses management. • External logistics: main transport systems/solutions; internal-external logistics integration issues; distribution logistics; decision-making in external logistics systems. • Reliability theory: functional and reliability charts, series and parallel systems, series-parallel configurations and parallel-series configurations, majority logic systems, stand-by systems, choice of the most convenient redundancy level, efficiency identification. • Organization and management of maritime maintenance service: maintenance planning, management of the maintenance spare parts, forecast methods of spare parts needs
<p>Course program</p>	
<p>Bibliography</p>	<ul style="list-style-type: none"> • Monte Elementi di impianti industriali, Vol 1 e Vol 2 (Cap. 32 e 33) . Ed. Libreria Cortina Torino, 2002-2003. • A. Pareschi: "Logistica Integrata e Flessibile"; Ed. Esculapio – Bologna – 2002 • E. Rullani: "Sistema logistico e gestione della produzione"; in "Economia e Direzione dell'Impresa Industriale" – a cura di P. Saraceno – Ed. ISEDI Milano – 1981 • L. Fedele, L. Furlanetto, D. Saccardi. Progettare e gestire la manutenzione, Ed. McGraw Hill, Milano, 2004.
<p>Notes</p>	<p>None</p>
<p>Teaching methods</p>	<p>Lectures, supported by projector, personalized feedback and coaching to improve every aspect of the student's work.</p>

Assessment methods	Oral examination of 30 minutes duration. The focus of the test consists of evaluating the capability of students in adopting tools and methodological approaches
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	<p>learned in the course to full real case study. Evaluate the knowledge of students on topics expressed in the full course, in terms of expressive abilities and proper terminology.</p>
Evaluation criteria	<ul style="list-style-type: none"> • Knowledge of the fundamental managerial and technical concepts concerning evaluation, implementation and use of the industrial logistic system in maritime and harbor sector. Knowledge of policies and planning of reliability systems, management and maintenance of plant and devices in industrial sectors.
Further information	