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| Course Title | **Cargo Transport**  |
| Course Code | MANS-322 |
| Course Type | Required |
| Level | 1st Cycle |
| Year / Semester | 3rd Year, Spring Semester  |
| Teacher’s Name |  |
| ECTS | 7 | Theory | Laboratory | Simulation | Tutorial |
| 4 | 2 | ---- | ---- |
| Course Purpose and Objectives | The main objectives of the course are to:* introduce the safe loading, securing, transporting and discharging of all the major types of cargo
* examine the basic issues of RO-RO Pax cargo operation
* offer detailed information on the handling of dangerous cargo
* elaborate on the effect of cargo in the ship’s seaworthiness and stability
* discuss about the effect of cargo in vessel’s and crew’s safety
* describe the securing and the maintenance of communications procedures throughout cargo operations
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| Learning Outcomes | After completion of the course students are expected to be able to: * safely load, secure, transport and discharge all the major types of cargo
* control all the major problems arising during a RO-RO Pax cargo operation
* deal with all types of dangerous cargo that might be transported with a vessel
* comprehend in detail the effect of cargo in the ship’s seaworthiness and stability
* realize the effect of the cargo to the vessel’s and crew’s safety
* properly secure and maintain the communications throughout the cargo operations
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| Prerequisites | None | Required | None |
| Course Content | * Safe cargo transport
* Dry cargoes and cargo declaration
* Liquid cagoes & MSDS
* Cargo spaces preparation, separation, inspection
* Ventilation and control of transpiration
* Organization of cargo stowing
* Defining vessel sizes
* Load lines and draft
* Dangerous cargo
* IMDG code and IMSB
* Bulk cargo other than grain
* RO –RO Pax vessels
* Containerized cargo
* Crude oil and product transport
* Tanker ships
* Transport of liquid cargoes
* Refrigerated cargo transport
* Timber transport
* Coal, Bauxite and metal ore transport
* Steel and steel product transport
* Grain transport
* Cargo in ballast tanks
* Unitized cargo
* Cargo securing. Calculations. Vehicle securing
* Crossing seasonal zones. Cargo and draft calculations
* Calculations related to the hold tanks cargo
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| Teaching Methodology | Lectures, in-class assignments, sound and video equipment, computer, projector, relevant software, cargo handling simulator  |
| Bibliography | 1. **Required Textbooks/Reading:**

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| **Authors** | **Title** | **Publisher** | **Year** | **ISBN** |
| Cpt Thomas, R.E., rewritten by Rankin, K.S. | The properties and stowage of cargoes | Glasgow, Brown, Son & Ferguson | 2008 | 978-0-85714-798-8 |

1. **Recommended Textbooks/Reading:**

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| **Authors** | **Title** | **Publisher** | **Year** | **ISBN** |
| Taylor, L.G.  | Cargowork  | Glasgow, Brown, Son & Ferguson | 1992 | 978-0-85174-605-5 |
| IMO | Code for safe practice for cargo stowage and securing | IMO | 2003 | 978-92-801-51459 |

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| Assessment | Homework, in-class assignments, projects, exams, final exam. |
| Language | English  |