

Module Title: MARITIME TECHNOLOGY AND SAFETY

• **Type of Module:**

NA0001	Elective
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• **Level of Module**

Postgraduate

• **Year of Study**

MASTER'S

• **Semester**

Spring Semester 2 nd period

• **Number of credits allocated**

3

• **Name of lecturer / lecturers : Alexandros Glykas**

• **Description:**

The course outlines general ship characteristics as well as the statutory and commercial rules and guidelines associated with the design and operational profile of ship types.

• **Prerequisites:** Not applicable

• **Module Contents (Syllabus):**

1. Statutory and class regulations
2. General ship characteristics
3. Ship types and commercial profile - Q88 and General Cargo Characteristics
4. Strength & stability characteristics -Machinery & propulsion
5. Ship repair management
6. Ship Valuation principles
7. Technical- Maritime Transport Economics
8. Competitiveness of shipyards
9. Ship energy efficiency management practices

Language of instruction / Γλώσσα διδασκαλίας

Greek/English

Name and contact info of lecturer / Στοιχεία διδάσκοντα

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Expected learning outcomes / Μαθησιακοί στόχοι

AIMS OF THE COURSE

The course outlines general ship characteristics as well as the statutory and commercial rules and guidelines associated with the design and operational profile of ship types. Statutory and class regulations are presented in association to the flag licensing and design criteria related to safe construction of ships. Furthermore, most common ship types and their commercial characteristics are presented.

Furthermore the course specializes in profound ship technologies and ship economics. It introduces repair management techniques, as well as ship valuation principles. It further analyzes technical and maritime transport economics, so that the student familiarizes with concepts such as freight calculation and cost benefit analysis for voyages. Participants will also examine shipyard economics and competitiveness, which is a very important part of the shipping industry. The course will be finalized by presenting the latest regulations with respect to carbon emissions and best practices for energy efficiency management, not only for ships but for the company as an entity.

Learning Objectives have as follows:

1. To generate an understanding on ship safety and statutory requirements
2. To raise awareness on the techno-economic issues associated with the commercial operations and use of vessels.
3. Identify the differences on technical apparatus of basic commercial ship types
4. Define the parameters that describe commercial characteristics of tankers and bulk carriers.
5. Define various ship inspections for commercial purposes
6. Identify the parameters incorporated in the calculation of daily running costs of ships
7. Identify the parameters incorporated in the calculation of minimum required freight calculations
8. To obtain an understanding on the principles of ship repair management
9. To describe the parameters involved in the organization of a ship repair
10. To organize shipyard comparison tables
11. Discuss the negotiations between ship owners and shipyards
12. Discuss the role of the technical department of the management company

LEARNING OUTCOMES

At the end of lectures students should be able:

1. Recognize different ship types
 2. Prepare theoretical analysis of vessel daily expenditure costs
 3. Prepare ship description for bulk carriers
 4. Complete a Q88 questionnaire for tank vessel
 5. Present the advantages and disadvantages amongst same type vessels with different characteristics
 6. To obtain an understanding on the principles of ship repair management
 7. To describe the parameters involved in the organization of a ship repair
 8. To organize shipyard comparison tables
 9. Explain the shipyard productivity and associated parameters
 10. Explain shipyard competitiveness
 11. Discuss ship Valuation principles
 12. Discuss energy efficiency management rules and practices
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Mode of delivery and teaching methods / Είδος μαθήματος και διδακτική μέθοδος
(Lectures-Seminars)

1. Lectures
2. Case Studies
3. Multi Media

Compulsory & recommended reading / Υποχρεωτική & Συνιστώμενη βιβλιογραφία

1. Lecture Notes
2. Exercises
3. Case Studies

Assessment methods & criteria / Μέθοδος & κριτήρια αξιολόγησης

1. Course assignment/homework
 2. Final Exam
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