

Tankers, bulk carriers, container ships, dredgers, tugs, fishing vessels,...

Initial competences

Introduction to marine technology, Mechanics of materials, Mechanics of structures, Turbo machinery, Piston machinery

Final competences

- 1 Master the terminology in relation to maritime constructions, structure and exploitation.
- 2 Description and naming of the relevant parts of maritime constructions.
- 3 To be able to explain the relationship between the load, the response and the strength of maritime constructions.
- 4 Gaining insights in the different failure mechanisms as a result of the load on a maritime construction.
- 5 Understand the calculation methodology for the design of basic parts and elements of maritime constructions.
- 6 To be able to explain the mathematical and scientific basis in relation to used formulae in the design of a maritime construction.
- 7 Possess basic knowledge, required for the design, construction, control or exploitation of maritime constructions.
- 8 Assessment and estimation of the strength of parts and elements of a maritime construction.
- 9 Apply direct calculation, based on material strength, and the use of class rules for the design of maritime constructions.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, Independent work

Extra information on the teaching methods

Lectures and guided project about the specific topics of the courses content, with the possibility of asking questions.

If possible, the lectures are supplemented with visits to relevant research institutions and companies.

Study material

Type: Syllabus

Name: syllabus of this course

Indicative price: € 30

Optional: no

Language : English

Number of Pages : 300

Oldest Usable Edition : 2024

Available on Ufora : Yes

Online Available : Yes

Available in the Library : No

Available through Student Association : No

Type: Laptop

Name: laptop

Indicative price: € 1,000

Optional: no

Available through Student Association : No

Usability and Lifetime within the Course Unit : not applicable

References

- Scheepskennis (K. van Dokkum, Dokmar, Delfzijl 2001)
- Principles of Naval Architecture (SNAME, Jersey City, laatste editie)
- Mansour, A. E., Liu, D., Paulling, J. R., & Society of Naval Architects and Marine Engineers (U.S.). (2008). Strength of ships and ocean structures. Jersey City, N. J: Society of Naval Architects and Marine Engineers.

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Oral assessment

Examination methods in case of periodic assessment during the second examination period

Oral assessment

Examination methods in case of permanent assessment

Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

During examination period: oral closed-book exam. During semester: graded project reports.

Calculation of the examination mark

Specific conditions: Non periodical evaluation: 33%

If for one of the abovementioned items a mark of less than 5 on 20 is obtained, the student cannot pass for the entire course. The final mark is in that case the minimum of 9/20 and the abovementioned weighted result.