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# Course Specifications

Valid in the academic year 2023-2024

# Ship Technology (B001427)

Course size						
Credits 5.0	Study time 150					
Course offerings and t	teaching methods in academic ye	ar 2023-2024				
A (semester 1)	English	Gent	Gent lecture			
Lecturers in academic	: year 2023-2024					
Lataire, Evert			TW15	lecturer-in-	charge	
Offered in the following programmes in 2023-2024				crdts	offering	
Master of Science in Maritime Science				5	А	

(naminal values: actual values may depend on programme)

# Teaching languages

English

# Keywords

ship structure, principles of ship hydrostatics and stability, principles of ship resistance, ship propulsion, manoeuvring and seakeeping, ship types, ship technology

# Position of the course

The course belongs to the technical pillar of the master in Maritime Science. The goal of the course is to give a global overview of the technological aspects of a ship, in particular for students with a non-technical education. The basic technological principles and terminology are taught to the students, together with insight into the structure and operation of different ship types.

# Contents

In particular, the following subjects are discussed:

terminology of the ship structure (components; dimensions including gross and net tonnage; freeboard; shape; subdivision; construction elements)
Ship hydrostatics (general principles; stability: physical background, regulations, practical data; watertight subdivision and damage stability; stranding and docking)
Ship hydrodynamics (resistance; propulsion: engine, screw propeller, other types of propulsion; steering and manoeuvring: course stability, steering devices (rudder, thrusters), manoeuvrability, trials, restricted water effects, manoeuvring simulation; ship behaviour in waves: principles, roll damping devices; anchoring and mooring equipment)

•Ship types (tankers, bulk carriers, general cargo, container carriers, roro vessels, tugs, inland vessels)

# Initial competences

Basic knowledge of physics (secundary school level)

# **Final competences**

- 1 Having basic knowledge and understanding of the technological aspects of a ship that are relevant for maritime law and transport economy.
- 2 Having insight into the technological aspects not belonging to the own discipline or specialization.
- 3 Having a multidisciplinary attitude and being prepared to exceed the boundaries of the own discipline or specialization.
- 4 Having insight into the mutual impact of changing legal, economical and technical elements and being prepared to study and follow these.

# Conditions for credit contract

This course unit cannot be taken via a credit contract

#### Conditions for exam contract

This course unit cannot be taken via an exam contract

# Teaching methods

Lecture

#### Extra information on the teaching methods

Lectures 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

#### Learning materials and price

syllabus lecture notes powerpoint presentations via Ufora

# References

DOKKUM, K. van, Scheepskennis, Dokmar, Delfzijl, 2001; library Maritime Technology Division - UGent

# Course content-related study coaching

possibility of consulting lecturer or assistant

#### Assessment moments

end-of-term 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

#### Possibilities of retake in case of permanent assessment

not applicable

#### Extra information on the examination methods

The learning content for the exam is communicated via Ufora Oral exam with written preparation Open questions: two big 'overview questions', testing the knowledge, understanding and general insight of the student concerning the technological aspects of a ship; third question about the clarification of specific terms, testing the knowledge of the terminology Exam allows the student to prove his/her basic knowledge and understanding in the technological aspects of a ship Written preparation: approx. 1 hour; written preparation is handed in, but not evaluated Oral exam: 20-30 minutes

#### Calculation of the examination mark

100% oral exam