GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2026-2027

Ship Technology (B001427)

Course size *(nominal values; actual values may depend on programme)*

Credits 5.0 **Study time 150 h**

Course offerings in academic year 2027-2028

A (semester 1)	English	Gent

Lecturers in academic year 2027-2028

Lataire, Evert	TW15	lecturer-in-charge

Offered in the following programmes in 2027-2028	**crdts**	**offering**
Master of Science in Maritime Science	5	A

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

Study material

Type: Syllabus

Name: syllabus of this course
Indicative price: € 20
Optional: no
Language : English
Number of Pages : 300
Oldest Usable Edition : 2024
Available on Ufora : Yes
Online Available : No
Available in the Library : No
Available through Student Association : No

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