GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00072656		
Field of study	Design and Construction of Yachts, Naval Architecture and Offshore Structures		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2026/2027
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	4	Language of instruction	Polish
Semester of study	7	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Division of Marine Power Plants -> Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Mateusz Kędzierski	
	Teachers		

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	15	0.0	0.0	15

Subject objectives	The aim of the course is to prepare students to apply technical regulations and classification rules to the design, construction and operation of vessels. Students learn about the roles of maritime administrations and classification societies and how to identify the requirements that apply to a vessel based on its type, intended use and area of operation. The course also covers the approval of technical documentation, vessel surveys, and the assignment and maintenance of class. Students examine how these requirements contribute to maritime safety and the protection of the marine environment.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems	The student can apply maritime law and classification rules to solve a problem related to the design, construction or operation of a vessel. Using information about the vessel, including its type, intended use and area of operation, the student identifies the legal and classification requirements that apply to the case. The student justifies their interpretation by citing specific provisions and proposes how to demonstrate compliance with those requirements.	[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information
[K6_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment	The student can explain why knowledge of maritime law and classification rules is needed for vessel designers, shipyards and shipowners to work with maritime administrations and classification societies. Using a decision about the construction or operation of a vessel as an example, the student explains how this knowledge helps clarify who is responsible for what and ensures that the safety of people on board and the protection of the marine environment are taken into account.	[SK5] Assessment of ability to solve problems that arise in practice [SK4] Assessment of communication skills, including language correctness
[K6_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications	The student describes the main sources of requirements applicable to vessels, including international conventions, national regulations and the rules of classification societies. The student explains the roles of maritime administrations and classification societies and gives examples of how statutory and classification requirements are applied when approving technical documentation, conducting surveys and issuing certificates.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Course content – lecture

1. Sources of technical requirements (2 hours). National and EU regulations, selected IMO conventions (SOLAS, MARPOL and the Load Lines Convention), and classification society rules.

2. Applicability of regulations (2 hours). Identifying requirements based on vessel type, intended use, particulars and area of operation. Examples include merchant ships, fishing vessels and yachts.

3. Vessel classification and certification (2 hours). Roles of flag State administrations, classification societies and recognised organisations. Class notations, certificates of class and statutory certificates issued under international conventions.

4. Selected technical requirements (3 hours). Hull structure, stability, machinery, fire protection and pollution prevention.

5. Oversight during design and construction (2 hours). Approval of technical documentation, construction surveys, acceptance trials and assignment of class. Responsibilities of the designer, shipyard and shipowner.

6. Maintenance of class in service (2 hours). Periodic and unscheduled surveys. How damage, conversion or a change in intended use affects survey and documentation requirements.

7. Case study (2 hours). Identifying the requirements that apply after a change in a vessel’s intended use and determining which documents, tests and surveys are needed to demonstrate compliance.

Prerequisites and co-requisites

Students are expected to know the main types of vessels and their intended uses, understand basic terms such as length, draught and area of operation, and be able to identify key vessel particulars from

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Written test</td><td>56.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>1. Polish Register of Shipping (PRS), Rules for the Classification and Construction of Sea-going Ships (MOR), selected parts.
2. Lloyd’s Register (LR), Rules and Regulations for the Classification of Ships, selected parts.
3. DNV, Rules for Classification of Ships (DNV-RU-SHIP), selected parts.
4. International Maritime Organization (IMO), International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, selected chapters.
5. International Maritime Organization (IMO), International Convention for the Prevention of Pollution from Ships (MARPOL), as amended, selected annexes.</td></tr>
<tr><td>Supplementary literature</td><td>1. RINA, Rules for the Classification of Ships, selected parts.
2. Bureau Veritas (BV), Rules for the Classification of Steel Ships (NR467), selected parts.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">1. Interpreting a class notation. Using a sample certificate of class and the relevant classification society’s rules, explain the meaning of the main class symbol and the vessel’s additional class notations.
2. Applying classification rules to a vessel modification. For a proposed modification to a vessel’s fuel system, identify the documents to be submitted for approval and the tests or surveys required. Explain the responsibilities of the designer, shipyard, shipowner and classification society.
3. Interpreting SOLAS or MARPOL provisions. Using the extract provided, determine whether a specified requirement applies to the vessel described. Consider its type, gross tonnage and area of operation. Justify your answer by citing the relevant provision of the convention.</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="2">Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.