GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Milestones and Trends in Ship Design, PG_00069615		
Field of study	Milestones and Trends in Ship Design		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	second-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	English English
Semester of study	2	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Division of Marine Auxiliary Machinery -> Institute of Naval Architecture -> Faculty of Mechanical Engineering and Ship Technology -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Wojciech Litwin	
	Teachers	prof. dr hab. inż. Wojciech Litwin	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	0.0	0.0	0.0	30
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	30	0.0	0.0	30

Subject objectives

The aim of the course is to familiarize students with modern technologies in shipbuilding. Across the board, scientists conducting research in various areas will share their knowledge with students, including the results of their own research.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_W12] identifies and interprets the main developmental trends and significant new achievements in the field of engineering and technical sciences and disciplines relevant to the course of study	The student knows the main development trends and the most important new achievements in the field of science	[SW2] Ocena wiedzy zawartej w prezentacji
[K7_U82] is able to proficiently obtain and process information related to field of study and academic environment in foreign language at B2+ level of the Common European Framework of Reference for Languages (CEFR)	The student has the ability to acquire knowledge in a foreign language.	[SU4] Ocena umiejętności korzystania z metod i narzędzi
[K7_K82] is equipped to participate actively in lectures, seminars and laboratory classes conducted in foreign language	The student has the ability to actively participate in lectures and seminars.	[SK4] Ocena umiejętności komunikacji, w tym poprawności językowej

<table>
<tr><td>Subject contents</td><td>The leader will select topics from a broad range of topics related to shipbuilding, such as:

- ship hydromechanics

- hull structure

- ship design

- ship stability

- shipping safety

- digital twins and artificial intelligence

- shipping decarbonization

- autonomy and remote control

- power transfer and ship shaft bearings

and others</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Engineering knowledge in the field of shipbuilding</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>attendance</td><td>65.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Current professional literature</td></tr>
<tr><td>Supplementary literature</td><td>none</td></tr>
<tr><td>eResources addresses</td><td>Supplementary
https://ww2.eagle.org/en.html - ABS Society website, "Innovation and Technology" tab
https://www.dnv.com/maritime/insights/ - DNV - insights - news in Maritime</td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>- What is a digital twin?

- Limitations and risks in remote ship control.

- What is "carbon capture"?

- AI in shipbuilding.</td></tr>
<tr><td>Practical activites within the subject</td><td>Not applicable</td></tr>
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