GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Fundamentals of Shipbuilding, PG_00060464		
Field of study	Mechanical and Naval Engineering		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Institute of Ocean Engineering and Ship Technology -> Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Jakub Kowalski	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	27.0	9.0	9.0	0.0	0.0	45

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	45	6.0	49.0	100

Subject objectives

The purpose of the course is to familiarize you with the basic technological processes in the construction of metal hulls.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W13] has an organized knowledge on design, construction and operation of ocean technology objects and systems	The student knows and distinguishes the basic processes in hull construction	[SW1] Assessment of factual knowledge
[K6_W14] has an organized knowledge on engineering methods and design tools allowing the conducting of projects within the construction and operation of ocean technology objects and systems	The student is able to select an engineering method and tool for the task at hand	[SW3] Assessment of knowledge contained in written work and projects
[K6_U13] in compliance with a formulated specification and with the aid of appropriate tools and methods, is able to complete a simple engineering task within the range of design, construction and operation of ocean technology objects and systems	The student is able to make a basic analysis of the metal hull structure in terms of its construction technology	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information
[K6_U11] can use computer-aided design, production and operation tools for ocean technology objects and systems	The student is able to use engineering tools to complete the task	[SU1] Assessment of task fulfilment

Subject contents

Lecture: Introduction - basic issues in the field of hull construction technology, including the properties of basic construction materials (steel and aluminum alloys), supplementing knowledge in the field of their connection. Stages of ship hull production: production preparation, pre-processing, prefabrication, hull assembly, launching, equipping. Laboratory: quality control in the construction of ship and yacht hulls - non-destructive testing of materials and welded joints.

Prerequisites and co-requisites

Basic in the field of:
- mechanics
- strength of materials
- material science
- welding

<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></td><td>100.0%</td><td>40.0%</td></tr>
<tr><td></td><td>60.0%</td><td>60.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Y. Okumoto, Y. Takeda, M. Mano, and T. Okada, Design of Ship Hull Structures. 2009.

D. J. Eyres and G. J. Bruce, "Ship Construction, 7th Edition," (in English), Ship Construction, 7th Edition, pp. 1-388, 2012.

PRS rules</td></tr>
<tr><td>Supplementary literature</td><td>articles pointed out by the lecturer

internet sources</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Differences between a bench method and a sequence of flat sections

Selection of nondestructive testing methods for the weld imperfections being sought</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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