GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00056286		
Field of study	Ocean Engineering		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	4	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
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. Karol Niklas	
	Teachers	dr inż. Karol Niklas mgr inż. Alicja Bera	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	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	2.0	18.0	50

Subject objectives	Familiarisation of student with basic processing ways of material, problems of metroly, kinds of shipyard as well as with main processes of ship erection

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U06] 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	Student is able properly planning of the project realization, define of timetable, cost flow sheet and perform of the risk analysis in relations to project realization.	[SU4] Assessment of ability to use methods and tools
[K6_U05] can formulate a simple engineering task and its specification within the range of design, construction and operation of ocean technology objects and systems	Student is able to formulate key topics for realised task and defines milestones for its realisation	[SU3] Assessment of ability to use knowledge gained from the subject
[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems	Student recognizes and knows issues and physical processes in relations to deigned object	[SW1] Assessment of factual knowledge

Subject contents	Shipyard : arrangement, organization of manufacturing processes, documentation for process of ship manufacturing. Technology of ship erection process : basic definitions. Producibility of structure : technical and economical criterion. General characteristic of processes of ship erection and fitting out. System for preparation of production process : traditional, integrated, CAD, CAM, CAQ, CIM. Ship hull structural materials : basic strength and technological characteristics. Problems of protection against corrosion. Storage of steel materials. Technological processes of manufacturing : characteristic of center for processing, equipment and processes : cutting and bending of steel and aluminum plates and profiles. Processing of special materials. tendencies in development of technological processes : automation and robotics. Center for pretreatment of hull materials. Flat and curvilinear panel production lines. Sectional and block hull arrangement. Prefabrication of sections and blocks. Methods for hull assembly. Methods of launching.
Prerequisites and co-requisites	

<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>lecture</td><td>60.0%</td><td>50.0%</td></tr>
<tr><td>labolatory</td><td>90.0%</td><td>50.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Ship Construction7th Edition Authors: George Bruce, David Eyres</td></tr>
<tr><td>Supplementary literature</td><td>1. E.Baker III: Introduction to Steel Shipbuilding, McGraw-Hill 1953
2. Kuzminow S.: Swarocznyje deformacji sudowych konstrukcji. Sudostrojenije 1974.
3. Wiebeck E.: Technologie des Schiffskorperbaus. Technik Berlin 1980.</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:
Technologia budowy okrętu I , W/L, sem.4, lato 23/24, (PG 00056286) - Moodle ID: 37639
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37639</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2"></td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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