GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00056304					
Field of study	Ocean Engineering					
Date of commencement of studies	October 2021		Academic year of realisation of subject	2022/2023		
Education level	first-cycle studies		Subject group	Optional subject group Subject group related to scientific research in the field of study		
Mode of study	Full-time studies		Mode of delivery	at the university		
Year of study	2		Language of instruction	Polish		
Semester of study	3		ECTS credits	5.0		
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. Piotr Bzura				
	Teachers	mgr inż. Dominik Kreft dr inż. Piotr Bzura				

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	30.0	0.0	60
	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	60	10.0	55.0	125

Subject objectives	The aim is to acquiring the skills and knowledge necessary to design and make drawings of the indicated part of device using 3D software (Autodesk Inventor).

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U03] can use computer-aided design, production and operation tools for ocean technology objects and systems	The student knows examples of tools supporting design processes and is able to use them	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools
	[K6_W03] has a basic knowledge on hydromechanics, thermodynamics, machine construction, ecology, materials science and electronics necessary to understand the construction and operation principles of ocean technology objects and equipment	The student understands the purpose and principles of designing sample machine parts.	[SW3] Assessment of knowledge contained in written work and projects
	[K6_W05] has an organized knowledge on design, construction and operation of ocean technology objects and systems	Student is able to choose the optimal device solution for the intended purpose.	[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects
	[K6_W08] has knowledge of the principles of sustainable development	The student knows the various possibilities of supporting the design process	[SW3] Assessment of knowledge contained in written work and projects

Subject contents	Technical drawing, basics of machine construction, engineering graphics, 3d modeling
Prerequisites and co-requisites	Knowledge of the basic principles of creating drawing documentation, technical drawing, basic knowledge of the strength of materials and mechanics.

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		50.0%	50.0%
		50.0%	50.0%

Recommended reading	Basic literature	1.Rysunek techniczny w mechanice i budowie maszyn Paweł Romanowicz
		2.Rysunek techniczny Krzysztof Filipowicz, Mariusz Kuczaj, Aleksander Kowal
		3. Podstawy rysunku technicznego Jan Burcan
		4. AutoCad 2019 Pierwsze kroki Andrzej Pikoń
		5.Modelowanie w programie Solid Edge Podstawy Tomasz Gawroński
		6. Dietrich M.: Podstawy Konstrukcji Maszyn, tomy 1,2 i 3
		7. Kochanowski M.: Wybrane zagadnienia z Podstaw Konstrukcji Maszyn, skrypt PG 2002r.
		8. Dobrzański J.: Rysunek Techniczny Maszynowy
		9. Spotts M. F., Design of Machine Elements, Prentice Hall
		10. Autodesk Inventor 2014. Oficjalny podręcznik
	Supplementary literature	**Fabian Stasiak** Zbiór ćwiczeń Autodesk Inventor 2018 Kurs podstawowy
	eResources addresses	Adresy na platformie eNauczanie: Komputerowe wspomaganie projektowania maszyn okrętowych,W,SiUO,sem.3,zimowy 22/23 - Moodle ID: 26273 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=26273 Komputerowe wspomaganie projektowania maszyn okrętowych,W,SiUO,sem.3,zimowy 22/23 - Moodle ID: 26273 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=26273
Example issues/ example questions/ tasks being completed	Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the loading crane. Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the loading ramp crane. Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the hybrid module crane. Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the gondola's crane	
Work placement	Not applicable	