



## Subject card

Subject name and code	, PG_00056326						
Field of study	Ocean Engineering						
Date of commencement of studies	October 2022		Academic year of realisation of subject		2024/2025		
Education level	first-cycle studies		Subject group				
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		3.0		
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. Wojciech Leśniewski				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	30.0	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		5.0		25.0	75
Subject objectives	The aim is to acquiring the skills and knowledge necessary to design and make drawings of the indicated device using 3D software (Autodesk Inventor). Implemented as a supplement to design work aimed at acquiring the ability to use the software on the example of the designed ocean engineering device.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W08] has knowledge of the principles of sustainable development		The student understands the need to learn many design techniques.		[SW3] Assessment of knowledge contained in written work and projects		
	[K6_W06] 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		Student is able to make calculations and documentation of the designed device based on computer tools.		[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
	[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 determine the operating conditions and design assumptions for a selected machine intended for ocean engineering objects.		[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
	[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.		[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
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	<p>1. Rysunek techniczny w mechanice i budowie maszyn Paweł Romanowicz</p> <p>2. Rysunek techniczny Krzysztof Filipowicz, Mariusz Kuczaj, Aleksander Kowal</p> <p>3. Podstawy rysunku technicznego Jan Burcan</p> <p>4. AutoCad 2019 Pierwsze kroki Andrzej Pikoń</p> <p>5. Modelowanie w programie Solid Edge Podstawy Tomasz Gawroński</p> <p>6. Dietrich M.: Podstawy Konstrukcji Maszyn, tomy 1,2 i 3</p> <p>7. Kochanowski M.: Wybrane zagadnienia z Podstaw Konstrukcji Maszyn, skrypt PG 2002r.</p> <p>8. Dobrzański J.: Rysunek Techniczny Maszynowy</p> <p>9. Spotts M. F., Design of Machine Elements, Prentice Hall</p> <p>10. Autodesk Inventor 2014. Oficjalny podręcznik</p>
	Supplementary literature	<b>Fabian Stasiak</b> Zbiór ćwiczeń Autodesk Inventor 2018 Kurs podstawowy
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	<p>Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the loading crane.</p> <p>Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the loading ramp crane.</p> <p>Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the hybrid module crane.</p> <p>Based on the presented examples and assumptions, design and prepare drawings and documentation of selected elements of the gondola's crane</p>	
Work placement	Not applicable	