



Subject card

Subject name and code	, PG_00055813						
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	3		ECTS credits		7.0		
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. Daniel Piątek				
	Teachers		mgr inż. Ewa Wojtowicz				
			dr inż. Daniel Piątek				
			dr inż. Wojciech Leśniewski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	30.0	0.0	30.0	0.0	90
	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	90		16.0		69.0	175
Subject objectives	<div>- Development of spatial imagination,</div> <div>- Understanding the rules for the implementation of technical documentation,</div> <div>- Ability to perform drawing sketches of machine components,</div> <div>- Ability to perform technical drawings;</div>						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W04] has a basic knowledge in IT, electronics, automation and control, computer graphics useful to understand the possibilities of their application in ocean technology		the student is able to use computer-aided design tools to prepare drawing documentation in electronic 2D version		[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
	[K6_U01] can obtain information from literature, databases and other sources, can verify and organize the obtained information, interpret them and form conclusions and justified opinions		the student is able to use and applies standards related to engineering graphics in order to prepare drawing documentation of machine parts		[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information		
Subject contents	<div>LECTURE and TUTORIALS</div> <div>- The role of engineering graphics, basics of normalization,</div> <div>- Projections of parallel, rectangular and axonometric,</div> <div>- Point, line, plane, determination, common points, specific locations,</div> <div>- Solids of revolution and polyhedrons, puncture, cut, penetration,</div> <div>- Views, examples, cross-sections,</div> <div>- Dimensioning of components, dimensional tolerance, determination of the surface condition,</div> <div>- Types of drawings, graphic form sheet, rules for the design documentation;</div>						

Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	lecture - colloquium	60.0%	50.0%
	project - tech. drawings	60.0%	50.0%
Recommended reading	Basic literature	DOBRZAŃSKI, T.: Rysunek techniczny maszynowy. WNT, 2004 MIERZEJEWSKI, W.: Geometria wykreślna. Rzuty Monge'a. Oficyna Wyd. P. War., 2006	
	Supplementary literature	ROMANOWICZ, P.: RYSUNEK TECHNICZNY W MECHANICE I BUDOWIE MASZYN. Wydawnictwo Techniczne PWN, W-Wa 1918; LEWANDOWSKI T. - Rysunek techniczny dla mechaników. WSiP Wydawnictwa Szkolne i Pedagogiczne, W-wa 2008; KURMAZ, L.: Podstawy Konstrukcji Maszyn. Projektowanie węzłów i części maszyn. Wyd. Politechniki Świętokrzyskiej, Kielce 2011;	
	eResources addresses	Adresy na platformie eNauczanie: Grafika inżynierska (W), OiKM (PG_00060525), sem. 1, zimowy 23/24 - Moodle ID: 32800 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=32800 Grafika inżynierska (W), OiKM (PG_00060525), sem. 1, zimowy 23/24 - Moodle ID: 32800 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=32800	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		