



Subject card

Subject name and code	Engineering Graphics 1, PG_00044633						
Field of study	Ocean Engineering, Ocean Engineering						
Date of commencement of studies	October 2020		Academic year of realisation of subject		2020/2021		
Education level	first-cycle studies		Subject group		Obligatory subject group in the field of study		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Marine Mechatronics -> Faculty of Ocean Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Agnieszka Maczyszyn				
	Teachers		dr inż. Magdalena Kunicka				
			dr inż. Agnieszka Maczyszyn				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	30.0	0.0	0.0	0.0	45
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Engineering Graphics 1 - Moodle ID: 8263 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=8263 Engineering Graphics 1 - Moodle ID: 8263 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=8263						
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	<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_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 acquires the ability to create drawings of machine elements in accordance with the standards of technical drawing.		[SU1] Assessment of task fulfilment		
	[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 acquires the ability to present rectangular machine elements in plans		[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		

Subject contents	LECTURE and TURTORIALS - The role of engineering graphics, basics of normalization, - Projections of parallel, rectangular and axonometric, - Point, line, plane, determination, common points, specyfic locations, - Solids of revolution and polyhedrons, puncture, cut, penetration, - Views, examples, cross-sections, - Dimensioning of components, dimensional tolerance, determination of the surface condition, - Types of drawings, graphic form sheet, rules for the design documentation;		
Prerequisites and co-requisites	- Knowledge of geometry, - Knowledge of basic machines and their construction;		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	tutorials tech. drawings	60.0%	30.0%
	lecture colloquium	55.0%	40.0%
	tutorials colloquiums	60.0%	30.0%
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	DOBRZAŃSKI, T.: Rysunek techniczny maszynowy. WNT, 2004 Kurmaz L.W.: Projektowanie węzłów i części maszyn. Wydawnictwo Politechniki Świętokrzyskiej, 2007	
	eResources addresses	Engineering Graphics 1 - Moodle ID: 8263 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=8263 Engineering Graphics 1 - Moodle ID: 8263 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=8263	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		