



Subject card

Subject name and code	Engineering graphics 1, PG_00041650						
Field of study	Transport and Logistics, Transport and Logistics						
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 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	1		Language of instruction		Polish		
Semester of study	2		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. Agnieszka Maczyszyn mgr inż. Ewa Wojtowicz				
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: GRAFIKA INŻYNIERSKA I - Moodle ID: 14010 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14010 GRAFIKA INŻYNIERSKA I - Moodle ID: 14010 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14010						
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	Introduction to Engineering Graphics. The development of spatial imagination. Engineering graphics as a basic tool for transmitting information about machine elements. Ability to draw sketches of drawing elements of machine parts using rectangular and axonometric projections. Understanding the basics of the construction.						
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 transport		The student is able to interpret technical documentation prepared according to current drawing standards		[SW3] Assessment of knowledge contained in written work and projects		
	[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 understands the tasks and role of engineering graphics in technology and industry.		[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
Subject contents	Understanding the role of engineering graphics, the basis for standardization. Parallel, rectangular and axonometric views. Point, line, plane, determination, common points, special positions. Rotary solids and polyhedrons, puncture, intersection. Views. Dimensioning of elements, tolerance of dimensions, determination of surface condition. The types of drawings, the graphic form of the sheet, the principles of performing executive and assembly documentation.						
Prerequisites and co-requisites	Knowledge of basic machines and their construction;						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	2 colloquium including lectures	60.0%	50.0%
	2 colloquia of exercises	60.0%	30.0%
	Drawing exercises	60.0%	20.0%
Recommended reading	Basic literature	Descriptive Geometry (9th Edition) by E.G. Pare , Robert Olin Loving , Ivan L. Hill , R.C. Pare ISBN-13: 978-0023913419ISBN-10: 002391341X	
	Supplementary literature	Monge's Legacy of Descriptive and Differential Geometry Paperback March 11, 2016 by Kristen R. Schreck	
	eResources addresses	Uzupełniające GRAFIKA INŻYNIERSKA I - Moodle ID: 14010 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14010 GRAFIKA INŻYNIERSKA I - Moodle ID: 14010 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14010	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		