



## Subject card

Subject name and code	Engineering Graphics, PG_00060629						
Field of study	Transport and Logistics						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
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			4.0		
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	mgr inż. Ewa Wojtowicz dr inż. Daniel Piątek					
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	4.0		51.0		100
Subject objectives	<ul style="list-style-type: none"><li>- Development of spatial imagination,</li><li>- Understanding the rules for the implementation of technical documentation,</li><li>- Ability to perform drawing sketches of machine components,</li><li>- Ability to perform technical drawings;</li></ul>						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_U01] can obtain information from literature, databases and other sources; verify and systematize the information obtained, interpret it and draw conclusions, formulate and justify opinions	he Student is able to prepare 2D drawing documentation (projections, dimensions) of spatial solids and machine parts in accordance with the applicable TD rules			[SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment		
	[K6_W04] has well established knowledge in the field of computer science, electronics, automation and control, information technology and computer graphics, useful for understanding the possibilities of applying them in transport	The Student proficiently uses design-aided software (AutoCAD) and uses it to prepare 2D drawing documentation			[SW1] Assessment of factual knowledge		

Subject contents	LECTURE and TUTORIALS - The role of engineering graphics, basics of normalization, - Projections of parallel, rectangular and axonometric, - Point, line, plane, determination, common points, specific 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	<table border="1"> <thead> <tr> <th data-bbox="454 524 788 551">Subject passing criteria</th> <th data-bbox="799 524 1139 551">Passing threshold</th> <th data-bbox="1150 524 1484 551">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="454 557 788 584">tutorials colloquiums</td> <td data-bbox="799 557 1139 584">60.0%</td> <td data-bbox="1150 557 1484 584">50.0%</td> </tr> <tr> <td data-bbox="454 591 788 618">project drawings</td> <td data-bbox="799 591 1139 618">60.0%</td> <td data-bbox="1150 591 1484 618">50.0%</td> </tr> </tbody> </table>	Subject passing criteria	Passing threshold	Percentage of the final grade	tutorials colloquiums	60.0%	50.0%	project drawings	60.0%	50.0%		
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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	-										
	eResources addresses	Adresy na platformie eNauczenie:										
Example issues/ example questions/ tasks being completed												
Work placement	Not applicable											