



Subject card

Subject name and code	Geographical Information Systems, PG_00056235						
Field of study	Transport and Logistics						
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. Aleksander Kniat				
	Teachers		dr inż. Aleksander Kniat				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	0.0	30
	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	30		4.0		41.0	75
Subject objectives	Presentation of geographic information analysis and synthesis methods in a GIS system.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W06] has an organized knowledge on engineering methods and design tools allowing the conducting of projects within the construction and operation of means and systems of transport		Student is able to apply tools and methods of GIS system to design a maritime transportation object or system.		[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation		
	K6_U03		Student is able to perform a spatial analysis using GIS system concerning exploitation of maritime transportation objects or systems.		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools		
Subject contents	<p>Definition and applications of Geographic Information Systems (GIS). Data in GIS system: spatial data and attributes. Storing and using data, data sources. Vector vs. raster objects. Coordinate's systems. Standard data formats. Vizualization: maps, layers, symbols, labels. Data classification. Data analysis and synthesis, processing data from different sources.</p>						
Prerequisites and co-requisites	Basic knowledge about operating system and file system usage.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	project		60.0%		100.0%		
Recommended reading	Basic literature		Davis D. GIS dla każdego 2009 Gaździcki J. Systemy Informacji przestrzennej 1990				
	Supplementary literature		Litwin L., Myrda G., Systemy Informacji Geograficznej. Zarządzanie danymi przestrzennymi w GIS, SIP, SIT, LIS. 2005				
	eResources addresses		Uzupełniające Adresy na platformie eNauczanie:				

Example issues/ example questions/ tasks being completed	1. spatial analysis to select objects that satisfy some criteria 2. cartogram presenting statistic data
Work placement	Not applicable

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