

## 关。GDAŃSK UNIVERSITY 创 OF TECHNOLOGY

## Subject card

Field of study Transport and Logistics   Date of commencement of studies February 2023 Academic year of realisation of subject 2023/2024   Education level second-cycle studies Subject group Obligatory subject group in 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 exam   Conducting unit Faculty of Ocean Engineering and Ship Technology Name and surname of lecturer (lecturers) Subject supervisor dr in2. Aleksander Kniat   Lesson types and methods of instruction Lesson type Lecture Tutorial Laboratory Project Seminar SUM dr form and surname of study 15.0 0.0 0.0 30.0 0.0 45   Image: and number of study hours Learning activity plan Participation in didactic classes included in study plan Participation in consultation hours Self-study SUM dr form and hours SUM form and h	Geospatial information systems, PG_00057117						Subject name and code				
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		75		21.0				45	Number of study hours		
Subject objectives Presentation of geographic information analysis and synthesis methods and its practical usage.	Presentation of geographic information analysis and synthesis methods and its practical usage.							Subject objectives			
Learning outcomes Course outcome Subject outcome Method of verification	Course outcome Subject outcome Method of verification							Learning outcomes			
[K7_W04] The student has basic knowledge of IT and telecommunication systems in transport and in the area of controlStudent understands how to apply tools and methods of GIS system to design a maritime transportation object or system.[SW3] Assessment of knowl contained in written work an projects	Assessment of knowledge ined in written work and ts		ands how to apply ods of GIS system itime bject or system.		rstands how to hods of GIS sys aritime object or syste	udent has basic and systems in he area of control ms		[K7_W04] The stude knowledge of IT and telecommunication s transport and in the a in transport systems			
[K7_K02] The student is aware of the importance of non-technical aspects and the effects of engineering activities, including its impact on the natural environment and the related responsibility for decisions madeStudent understands how to perform a spatial analysis using GIS system concerning exploitation of maritime transportation objects or systems.[SK2] Assessment of progree work	ess of	progres	Assessment of	[K7_K02] The student is aware of the importance of non-technical aspects and the effects of engineering activities, including its impact on the natural environment and the related responsibility for decisions madeStudent understands how to perform a spatial analysis using GIS system concerning exploitation of maritime transportation objects or systems.[SK2] Assessment work							
Subject contents 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 analysis and synthesis, processing data from different sources, marcos and programming langar   Graphs and algorithms in spatial analysis (object location, shortest path)   Spatial data analysis examples in QGIS.	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, marcos and programming langauges. Graphs and algorithms in spatial analysis (object location, shortest path) Spatial data analysis examples in QGIS.								Subject contents		
Prerequisites Basic knowledge about operating system and file system usage.   and co-requisites Basic knowledge about programming.	Basic knowledge about operating system and file system usage. Basic knowledge about programming.						Prerequisites and co-requisites				
Assessment methods Subject passing criteria Passing threshold Percentage of the final g	grade	Subject passing criteria Passing threshold Percentage of the final gra				Assessment methods					
and criteria project 60.0% 100.0%		0 -	, 0	100.0%		-	60.0%	-	project	and criteria	

Recommended reading	Basic literature	Davis D. GIS dla każdego 2009 Gaździcki J. Systemy Informacji przestrzennej 1990 Kadaj R. "Polskie uklady wspolrzednych w geodezji" 2000
	Supplementary literature	Litwin L., Myrda G., Systemy Informacji Geograficznej. Zarządzanie danymi przestrzennymi w GIS, SIP, SIT, LIS. 2005
	eResources addresses	Podstawowe http://www.qgis.org - open-source GIS program with documentation Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	