



## Subject card

Subject name and code	Applications of Geo-oriented Information Systems, PG_00047861						
Field of study	Informatics						
Date of commencement of studies	October 2020		Academic year of realisation of subject		2022/2023		
Education level	first-cycle studies		Subject group		Optional subject group Subject group related to scientific research in the field of study		
Mode of study	Part-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		5.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Geoinformatics -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Zbigniew Łubniewski				
	Teachers		dr hab. inż. Zbigniew Łubniewski				
			dr inż. Jerzy Demkowicz				
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		10.0		85.0	125
Subject objectives	Learning by students on knowledge and practical skills on Geographic Information Systems and their various applications						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_W08] Knows and understands the fundamental dilemmas of modern civilisation and basic economic, legal and other conditions of various types of activities related to the field of study, including the basic concepts and principles in the field of industrial property and copyright protection.	Student knows selected applications of geoinformation systems, including the knowledge and understanding their non-technical issues.	[SW1] Assessment of factual knowledge
	[K6_U42] can apply tools and methods of designing, optimization, monitoring, management, increasing reliability and protection from safety hazards in local and distributed information systems and applications	Student is able, applying appropriate methods and tools, to design and optimalise geo-IT solutions, also considering the protection against threats.	[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
	[K6_U04] can apply knowledge of programming methods and techniques as well as select and apply appropriate programming methods and tools in computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study	Student is able to design and develop software for a given IT solution regarding geoinformation systems and their applications.	[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
	[K6_W43] Knows and understands, to an advanced extent, standards and methods of IT systems administration, monitoring of processes occurring in them and immunising them to undesirable phenomena and activities	Student has advanced knowledge on monitoring and managing of geoinformation systems.	[SW1] Assessment of factual knowledge
Subject contents	Introduction Municipal GIS systems Modelling and solving of logistic problems in GIS Routing and it's optimization Web-based digital charts for navigations support Remote data acquisition GIS systems Mobile GIS systems Navigation plotters 3D navigation systems		
Prerequisites and co-requisites	No requirements		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Written exam	50.0%	50.0%
	Project	50.0%	50.0%
Recommended reading	Basic literature	1. Stepnowski A. "Systemy akustycznego monitoringu środowiska morskiego", Gdańskie Towarzystwo Naukowe, Gdańsk 2001	
	Supplementary literature	The GIS Book, George Korte	
	eResources addresses	Adresy na platformie eNauczanie: Wybrane aplikacje systemów geoinformacyjnych - semestr letni 2022/2023 - Moodle ID: 30234 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30234">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=30234</a>	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		