



Subject card

Subject name and code	Monographic Lectures, PG_00048298						
Field of study	Informatics						
Date of commencement of studies	February 2023	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Optional subject group 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			2.0		
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. Marek Moszyński					
	Teachers	dr hab. inż. Marek Moszyński					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	15.0	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		16.0	50
Subject objectives	Introduction to driving problems of geoinformation systems						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W03] Knows and understands, to an increased extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum.	Student identifies problems related to the use of geoinformation technologies in information systems.			[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
	[K7_W41] Knows and understands, to an increased extent, the standards, production methods, life cycle and development trends of software as well as information systems and applications.	Student presents examples of applications using geoinformation technologies and mobile applications of geoinformation systems			[SW2] Assessment of knowledge contained in presentation		
	[K7_W06] Knows and understands, to an increased extent, the basic processes taking place in the life cycle of devices, facilities and technical systems.	Student presents selected devices and instruments used in geoinformation systems			[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation		
Subject contents	1. Taxonomy of technologies using information systems with particular emphasis on geoinformation systems 2. Selected problems related to the use of geoinformatic systems in Earth observation 3. Selected problems related to the use of geoinformatic systems in telecommunications 4. Selected problems related to the use of geoinformatic systems in satellite navigation systems 5. European institutions and their activities in the use of satellite technologies 6. Trends and flywheels for the development of economies based on the use of geoinformation technologies						
Prerequisites and co-requisites	No requirements						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	project development timeline	55.0%			100.0%		

Recommended reading	Basic literature	<p>1. Konceny G. "Geoinformation, Remote Sensing, Photogrammetry and Geographic Information Systems", Taylor & Francis Group, New York 2003</p> <p>2. Longley P., Goodchild M., Maguire D., Rhind D. "Geographic Information Systems and Science", John Wiley & Sons Ltd., West Sussex 2005</p> <p>3. Stepnowski A. "Systemy akustycznego monitoringu środowiska morskiego", Gdańskie Towarzystwo Naukowe, Gdańsk 2001</p>
	Supplementary literature	No requirements
	eResources addresses	<p>Adresy na platformie eNauczanie:</p> <p>Wykład monograficzny TMiG 2023 - Moodle ID: 29479 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=29479</p>
Example issues/ example questions/ tasks being completed	<ol style="list-style-type: none"> 1. Information technologies supporting large-scale processing 2. Platforms for the visualization of large-scale data 3. Platforms for storing and sharing satellite images 4. Cloud computing with the use of satellite data 5. Time analysis of satellite images 6. The use of machine learning to extract information from satellite data 7. The use of deep learning and neural networks to analyze satellite images 	
Work placement	Not applicable	