GDAŃSK UNIVERSITY OF TECHNOLOGY

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	1. Konceny G. "Geoinformation, Remote Sensing, Photogrammerty and Geographic Information Systems", Taylor & Francis Group, New York 2003 2. Longley P., Goodchild M., Maguire D., Rhind D. "Geographic Information Systems and Science", John Wiley & Sons Ltd., West Sussex 2005 3. Stepnowski A. "Systemy akustycznego monitoringu środowiska morskiego", Gdańskie Towarzystwo Naukowe, Gdańsk 2001
	Supplementary literature	No requirements
	eResources addresses	Adresy na platformie eNauczanie: Wykład monograficzny TMiG 2023 - Moodle ID: 29479 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=29479
Example issues/ example questions/ tasks being completed	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	