GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Applications of Geo-oriented Information Systems, PG_00047861
Field of study	Informatics

Date of commencement of studies	October 2021	Academic year of realisation of subject	2023/2024
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_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
		[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.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
		[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.	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
		[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

Subject contents	Introduction Municpal GIS systems Modelling and solving of logistic problems in GIS Routing and it"s optimalization 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
	Project	50.0%	50.0%
	Written exam	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: [InfNst 2024 sem6] Wybrane aplikacje systemów geoinformacyjnych - Moodle ID: 37252 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=37252

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable