GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Basics of Digital Cartography, PG_00047974
Field of study	Informatics

Date of commencement of studies	October 2024	Academic year of realisation of subject	2027/2028
Education level	first-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	4	Language of instruction	Polish
Semester of study	7	ECTS credits	3.0
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 inż. Jerzy Demkowicz
	Teachers	dr inż. Jerzy Demkowicz

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	15.0	0.0	0.0	45
	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	45	3.0	27.0	75

Subject objectives	Cartografphic Software Implemetation

Learning outcomes		Course outcome	Subject outcome	Method of verification
		[K6_U12] is able, to an advanced degree, to analyze the operation of components and systems related to the field of study, and to measure their parameters and study their technical characteristics, as well as to plan and carry out experiments related to the field of study, including measurements and computer simulations, and to interpret the obtained results and draw conclusions	The student is able to analyze and design the operation of digital map systems and cartographic databases at an advanced level, interpret and verify cartographic data contained in the database and draw conclusions.	[SU2] Assessment of ability to analyse information
		[K6_W04] knows and understands, to an advanced extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, and organisation of systems using computers or such devices	Creating simple systems for the presentation of digital maps, scaling, moving the area of the digital map.	[SW1] Assessment of factual knowledge
		[K6_K02] is ready to critically assess possessed knowledge and acknowledge the importance of knowledge in solving cognitive and practical problems	Digital map presentation using style sheets.	[SK2] Assessment of progress of work
		[K6_W03] knows and understands, to an advanced 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	Implementation of a simple digital map database.	[SW1] Assessment of factual knowledge

Subject contents	1. Modern Cartography 2. Modern chart 3. Reference GRS-80 i WGS-84, Elipsoidal hieght 4. Distances: orthodroma, locsodrome, geodesic 5. Cartographic transformation 6. Mercator & UTM 7. Raster charts 8. Vector charts 9. Modern GIS Databases 10. Database strucuters and SQL 11. Geocoding 12. Chart production process
Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture	51.0%	50.0%
	Lab	51.0%	50.0%

Recommended reading	Basic literature	1. Biancetti F. "Introduction to Digital Cartography", C-Map, La Spezia 2004 2. "Tatuk GIS Developer Kernel .NET Edition" 3. Stepnowski A. "Systemy akustycznego monitoringu środowiska morskiego", Gdańskie Towarzystwo Naukowe, Gdańsk 2001

	Supplementary literature	1. Dokumentacja protokołu WMS - http:/mapserver.org/orc/wms_server.html 2. Dokumentacja "Tatuk GIS Developer Kernel .NET Edition" 3. Dokumentacja techniczna GeoServer - www.geoserver.org 4. Dokumentacja techniczna oprogramowania GobalMapper- www.globalmapper.com
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Object Digital Chart Database	
Work placement	Not applicable	

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