



Subject card

Subject name and code	Basics of Digital Cartography, PG_00047974						
Field of study	Informatics						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2026/2027		
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	Cartographic Software Implementation						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U05] can plan and conduct experiments related to the field of study, including computer simulations and measurements; interpret obtained results and draw conclusions	Digitization of the digital map.	[SU1] Assessment of task fulfilment
	[K6_U41] can produce, test or evaluate software using modern programming platforms, tools, languages and paradigms of different levels, as well as use software packages supporting scientific and research processes as well as business decision-making processes and teamwork	Ability to prepare and verify data for creating a digital map database system.	[SU1] Assessment of task fulfilment
	[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
	[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_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	
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
	Lab	51.0%	50.0%
	Lecture	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 GobaMapper - www.globalmapper.com
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Object Digital Chart Database	
Work placement	Not applicable	