



## Subject card

Subject name and code	Basics of Digital Cartography, PG_00047974						
Field of study	Informatics						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2029/2030		
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 -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Jerzy Demkowicz					
	Teachers	dr inż. Jerzy Demkowicz					
Lesson types	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_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	<p>Course content – lecture</p> <ol style="list-style-type: none"> <li>1. Modern Cartography</li> <li>2. Modern chart</li> <li>3. Reference GRS-80 i WGS-84, Elipsoidal hieght</li> <li>4. Distances: orthodroma, locsodrome, geodesic</li> <li>5. Cartographic transformation</li> <li>6. Mercator &amp; UTM</li> <li>7. Raster charts</li> <li>8. Vector charts</li> </ol> <ol style="list-style-type: none"> <li>9. Modern GIS Databases</li> <li>10. Database strucuters and SQL</li> </ol> <ol style="list-style-type: none"> <li>11. Geocoding</li> </ol> <ol style="list-style-type: none"> <li>12. Chart production process</li> </ol>											
Prerequisites and co-requisites												
Assessment methods and criteria	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Subject passing criteria</th> <th style="width: 30%;">Passing threshold</th> <th style="width: 30%;">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td>Lecture</td> <td>51.0%</td> <td>50.0%</td> </tr> <tr> <td>Lab</td> <td>51.0%</td> <td>50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Lecture	51.0%	50.0%	Lab	51.0%	50.0%
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Lecture	51.0%	50.0%										
Lab	51.0%	50.0%										
Recommended reading	Basic literature	<ol style="list-style-type: none"> <li>1. Biancetti F. "Introduction to Digital Cartography", C-Map, La Spezia 2004</li> <li>2. "Tatuk GIS Developer Kernel .NET Edition"</li> </ol> <ol style="list-style-type: none"> <li>3. Stepnowski A. "Systemy akustycznego monitoringu środowiska morskiego", Gdańskie Towarzystwo Naukowe, Gdańsk 2001</li> </ol>										
	Supplementary literature	<ol style="list-style-type: none"> <li>1. Dokumentacja protokołu WMS - <a href="http://mapserver.org/orc/wms_server.html">http://mapserver.org/orc/wms_server.html</a></li> <li>2. Dokumentacja "Tatuk GIS Developer Kernel .NET Edition"</li> <li>3. Dokumentacja techniczna GeoServer - <a href="http://www.geoserver.org">www.geoserver.org</a></li> <li>4. Dokumentacja techniczna oprogramowania GobalMapper-<a href="http://www.globalmapper.com">www.globalmapper.com</a></li> </ol>										
	eResources addresses											
Example issues/ example questions/ tasks being completed	Object Digital Chart Database											
Practical activites within the subject	Not applicable											

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