

**Subject card**

<b>Subject name and code</b>	Cartography and Topography - laboratory, PG_00204512						
<b>Field of study</b>	Geography						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>				2026/2027	
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>				Obligatory subject group in the field of study	
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>				at the university	
<b>Year of study</b>	1	<b>Language of instruction</b>				Polish	
<b>Semester of study</b>	1	<b>ECTS credits</b>				2.0	
<b>Learning profile</b>	academic	<b>Assessment form</b>				credit	
<b>Conducting unit</b>	Centrum Monitoringu i Ochrony Wód -> Faculty of Oceanography and Geography -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Włodzimierz Golus				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	0.0	30.0	0.0	0.0	30
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	30		2.0		28.0	60
<b>Subject objectives</b>	Mastery the program content in the field of cartography and topography, aiming to: (1) acquire skills in utilizing appropriate cartographic methods to present elements of the geographical environment and socio-economic phenomena, (2) achieve versatile map reading skills and select and utilize available geographic information sources, including electronic sources, necessary for drafting specified maps, (3) gain skills in measurements on traditional maps and proficiency in using electronic maps and atlases.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[GEOGRL3-U09] is able to work in a group and take on various roles within it, look after the equipment entrusted to them, and ensure their own safety and that of others.	The student is able to cooperate and work effectively in a group or team while performing tasks in cartography and topography, adapting to different roles, demonstrating responsibility for entrusted cartographic tools, and adhering to safety rules related to their use.	[SU2] presentation/project/paper/report [SU8] observation of student's independent or team work
	[GEOGRL3-W06] knows advanced methods of acquiring, processing, and compiling geographic environmental data, as well as methods of analyzing and interpreting such data	The student knows and understands sources of information about the terrain necessary in cartography and topography, and is able to make an appropriate selection of electronic and online sources to obtain data for cartographic and topographic elaborations.	[SW2] presentation/project/paper/report
	[GEOGRL3-U04] can apply field and laboratory methods and research tools, spatial analysis methods, and methods of presenting research results in the field of geography, assess their usefulness for tasks in which the application goal of geography can be realized	The student is able to apply cartographic methods and basic research tools necessary in the process of map production, as well as observation and field measurement techniques used in topography. Using appropriate methods and tools, the student acquires data from maps and from independent field observations and measurements, which, after analysis, are used to develop original thematic maps.	[SU2] presentation/project/paper/report
[GEOGRL3-U03] can plan and conduct, independently and as part of a team, simple research in the field of geography under the supervision of a scientific advisor, based on the necessary information from professional literature and other sources	The student is able to cooperate effectively within a team while performing tasks in cartography and topography, including spatial analyses and office-based elaborations, taking on different organizational and technical roles, assuming responsibility for entrusted measuring instruments, and adhering to safety rules for themselves and other participants.	[SU2] presentation/project/paper/report	
Subject contents	<ol style="list-style-type: none"> <li>1. Methods of depicting relief on maps.</li> <li>2. Scales and bars..</li> <li>3. Cartographic projections.</li> <li>4. Methods of representing phenomena on thematic maps.</li> <li>5. Cartographic generalization.</li> <li>6. Coordinate systems on overview and topographic maps. Sectional division.</li> <li>7. Cartometry.</li> <li>8. Thematic maps.</li> <li>9. Cartography - overview and discussion of selected works in contemporary cartography.</li> </ol>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Progress assignments	51.0%	90.0%
	Observation of students' individual work	51.0%	10.0%

Recommended reading	Basic literature	- Pasławski J. (red.), 2010, Wprowadzenie do kartografii i topografii, Wydawnictwo Nowa Era Redakcja Kartograficzna, Wrocław; - Pelczar M., Szeliga J., Ziółkowski J., 1991, Zarys kartografii i topografii, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk. A.2. studiowana samodzielnie przez studenta - Ratajski L., 1989, Metodyka kartografii społeczno-gospodarczej, PPWK, Warszawa-Wrocław; - Saliszczew K., 1998, Kartografia ogólna, PWN, Warszawa.
	Supplementary literature	- Churski Z., Galon R., 1996, Siatki Kartograficzne, Wydawnictwo UMK, Toruń. - Dzikiewicz B., 1971, Topografia, Wyd. Ministerstwa Obrony Narodowej. - Berlant A., Pasławski J. (red.), 2001, Metody kartograficzne a możliwości systemów komputerowych, Uniwersytet Warszawski, Warszawa
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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