

**Subject card**

<b>Subject name and code</b>	Environmental basis of spatial management – exercises, PG_00191726						
<b>Field of study</b>	Spatial Management						
<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 Subject group related to scientific research 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>	2	<b>ECTS credits</b>			3.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>							
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Barbara Korwel Lejkowska				
	<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	30.0	0.0	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		0.0		45.0	75
<b>Subject objectives</b>	Acquiring the ability to obtain spatial information from various analogue and digital sources, learning about thematic cartographic studies, acquiring the ability to work with maps in the field of natural environment components, including terrain topography, geomorphological and hydrological conditions, and climate.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>			<b>Method of verification</b>	
	[GPL3_W08] knows and understands the principles of operating basic equipment, devices and software used to obtain and process geographical information and spatial planning		knows the basic hardware and software necessary for environmental analyses in spatial management			[SW2] presentation/project/paper/report	
	[GPL3_K04] is ready to initiate and actively participate in activities for the benefit of spatial order and sustainable development of the region, country and Europe		explain the conditions for sustainable development and environmental protection measures in spatial planning and development			[SK2] presentation/project/paper/report [SK5] implementation of a problem task	
	[GPL3_U04] makes the correct selection of basic quantitative methods (including field research), uses them in the analysis of spatial diversity of natural, social or economic phenomena and also makes a correct interpretation of the results on the basis of the specificity of selected methods		selects and applies appropriate methods for environmental and sustainable development analyses			[SU2] presentation/project/paper/report	

Subject contents	<p>Introduction and analysis of a topographic map</p> <p>Analysis of geomorphological conditions and preparation of a map of such conditions          Analysis of selected conditions related to topoclimate          Analysis of lithological conditions and preparation of a map based on a geological map of surface formations          Analysis of a hydrographic map and preparation of a map of hydrographic conditions          Analysis of the sozological map and preparation of a map of sozological conditions          Analysis of the state and threats to the environment familiarisation with the results of WIOŚ/GIOŚ research          Synthesis of studies threshold analysis of the content of partial maps conditions and limitations for spatial management</p>														
Prerequisites and co-requisites	<p>knowledge, skills and competences at the general secondary school level</p> <p>basics of working with GIS software, learned in semester I</p>														
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="448 607 794 640">Subject passing criteria</th> <th data-bbox="794 607 1141 640">Passing threshold</th> <th data-bbox="1141 607 1487 640">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 640 794 674">project</td> <td data-bbox="794 640 1141 674">50.0%</td> <td data-bbox="1141 640 1487 674">70.0%</td> </tr> <tr> <td data-bbox="448 674 794 707">accompanying tasks</td> <td data-bbox="794 674 1141 707">100.0%</td> <td data-bbox="1141 674 1487 707">20.0%</td> </tr> <tr> <td data-bbox="448 707 794 745">presence</td> <td data-bbox="794 707 1141 745">90.0%</td> <td data-bbox="1141 707 1487 745">10.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	project	50.0%	70.0%	accompanying tasks	100.0%	20.0%	presence	90.0%	10.0%
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Recommended reading	Basic literature	<p>Contents of legal acts:</p> <ul style="list-style-type: none"> <li>• Act on Spatial Planning and Development of 2003</li> <li>• Environmental Protection Act of 2001.</li> <li>• Nature Conservation Act of 2004.</li> <li>• Water Law Act of 2017</li> <li>• Geological and Mining Law Act of 2011</li> </ul>													
	Supplementary literature	<p>Korwel-Lejkowska B., 2016, Analysis of selected threats to the development of settlements in municipalities of the Pomeranian Province in the context of sustainable development, (in:) Problems of Landscape Ecology, vol. XLII, PAEK, pp. 87100.</p> <p>Racinowski R., 1987, Introduction to the physiography of settlement, PWN, Warsaw.</p> <p>Sołowiej D., 1992, Fundamentals of the methodology of assessing the human natural environment, Wyd. Nauk. UAM, Poznań.</p> <p>Szczepanek R., 2017. Spatial Information Systems with QGIS Parts 1 and 2, Tadeusz Kościuszko University of Technology in Krakow Faculty of Environmental Engineering Institute of Engineering and Water Management. Krakow.</p>													
	eResources addresses														
Example issues/ example questions/ tasks being completed	<ul style="list-style-type: none"> <li>• spatial development conditions resulting from land cover;</li> <li>• spatial development conditions resulting from terrain relief;</li> <li>• hydrological conditions for spatial development;</li> <li>• spatial development conditions resulting from environmental protection.</li> </ul>														
Work placement	Not applicable														

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