

Subject card

Subject name and code	Environmental basics of spatial management, PG_00150388						
Field of study	Land Management						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study 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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		8.0		
Learning profile	academic		Assessment form				
Conducting unit	Division of Landscape and Environmental Studies -> Institute of Socio-Economic Geography and Spatial Management -> Faculty of Social Sciences -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Barbara Korwel Lejkowska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	110.0	30.0	0.0	0.0	0.0	140
	E-learning hours included: 0.0						
	Additional information: part of the lectures are realised in the field - as practical classes						
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	140		30.0		50.0	220
Subject objectives	Presentation of components of the natural environment and processes occurring in the natural environment with particular emphasis on the specificity of the environment of Pomerania; presentation of relationships between components of the environment and regularities inherent in the geosphere;To develop an awareness of the need to differentiate the direction and intensity of land use according to the presence of different landscape conditions. Skills of acquiring spatial information from analogue and digital sources; acquiring skills of working with maps						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[GPL3_W05] conditions and processes of spatial management, with particular regard to the specifics of Polish maritime areas and voivodeships of northern Poland	identifies and characterises the natural conditions of spatial management, especially in the coastal zone of the South Baltic, South Baltic Coastland and South Baltic Lakelands	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[GPL3_U03] select appropriate sources of information and on this basis give opinions on the development of space for a specific area with particular regard to the principles of sustainable development and spatial order	reads and produces a thematic map using basic GIS software capabilities	[SU4] test/exam - oral or written [SU6] demonstration of practical skills
	[GPL3_U04] make the correct selection of basic quantitative methods (including field research), use them in the analysis of spatial diversity of natural, social or economic phenomena and also make a correct interpretation of the results on the basis of the specificity of selected methods	selects data and basic (selected) quantitative methods on the basis of theoretical knowledge and applies them in the analysis of spatial variation of natural phenomena, interprets results correctly on the basis of knowledge of the specifics of the selected methods	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU6] demonstration of practical skills
	[GPL3_W02] problems, theories and trends in spatial management, taking into account aspects of the natural environment; understands their theoretical and practical significance	describes simple interactions between subsystems of the natural and human environment	[SW4] test/exam - oral or written
	[GPL3_U02] correctly identify and explain the conditions of spatial management of a particular area and forecast the impact of basic social processes on the structure of spatial development, and on this basis propose adequate actions within spatial policy, in particular in relation to Polish maritime areas and voivodeships of northern Poland	analyses simple human-environmental interactions in relation to a specific area and is able to identify their effects	[SU2] presentation/project/paper/report [SU4] test/exam - oral or written
	[GPL3_W08] principles of operating basic equipment, devices and software used to obtain and process geographical information and spatial planning	identifies methods of creating, transforming and visualising spatial data spatial data, and methods for their analysis and interpretation using GIS tools	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[GPL3_W09] at an advanced level, subsystems of the natural environment and the human life environment, interactions and contemporary trends of changes between these subsystems	define the subsystems of the geographical environment and explain the causes and describe the basic processes and phenomena occurring in the geographical environment of the Earth	[SW4] test/exam - oral or written
Subject contents	• General and specific laws of nature zonality and azonality, variability of the environment, ecosystem diversity, circulation of matter and energy, and other natural processes relevant to land use and human security • Environmental protection system, protection of environmental components - legal conditions and threats; Nature protection • Lithosphere and its significance for spatial management (geological structure, mineral resources, ground conditions) • Relief of the land and its significance for planning and use of space by man • Climatic-atmospheric determinants of spatial management • Significance of hydrosphere for spatial management; Water resources of Poland and Pomerania; • Seas and oceans, including the coastal zone of the southern Baltic - significance and threats • Pedosphere - influence on socio-economic development • Biosphere and its resources - as elements of determinants of socio-economic development (including environmental functions and significance of forest and hydrogenic areas); specificity of the biotic environment of Pomerania • Landscape - as a synthesis of natural conditions and an element of human life; regionalisation and landscape typology; • Models of the environment and space • Environmental barriers and constraints in spatial management - environmental and spatial collisions and conflicts; consequences of the Anthropocene; basics of environmental assessments • Basics of environmental information: data sources, institutions and their resources, databases (including spatial and elevation data resources - NMT, NMPT)		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written exam	51.0%	60.0%
	a multi-stage project with test	51.0%	40.0%

Recommended reading	Basic literature	• Law on spatial planning and development of 2003. • Environmental Protection Act of 2001 • The Nature Conservation Act of 2004. • Bezubik K., Czocharński J., Hałuzo M., Kubicz G., Mazurkiewicz B., Pomierski E., Radziszewska G., Rekowska J., Rudzińska A., 2014, Update of the Ecophysiological Study for the Spatial Management Plan for Pomorskie Voivodeship, Gdańsk Słupsk: Pomorskie Biuro Planowania Regionalnego. • Bródka S., 2010 (red.), Practical aspects of environmental assessments, Bogucki Wyd. Naukowe, Poznań. • Bródka S., Macias A., 2014, The natural basis of land management, PWN, pp.578 • Flis J., 1988, An introduction to physical geography, WSiP, Warszawa. • Kalesnik S., 1962, Basic physical geography, PWN, Warszawa. • Kistowski M., Pchalek M., 2009, Natura 2000 in spatial planning - the role of ecological corridors, Ministry of the Environment, Warszawa. • Krzymowska-Kostrowicka A., 1997, Geoecology of tourism and leisure, PWN, Warszawa. • Przewoźniak M., Czocharński J.T., 2020, The natural basis of spatial management. A pro-ecological approach. Wyd. Nauk. Bogucki, Poznań, pp.416; • Richling A. (red.), 2007, Geographical studies of the natural environment, PWN, Warszawa • Strahler A. N., 1974, Physical geography, 4 ed., Wiley, New York. • Urbański J., 2008, GIS in nature studies, Wyd. UG, Gdańsk.
	Supplementary literature	• Korwel-Lejkowska B., 2016, Analysis of selected hazards of settlement development in gminas of Pomorskie Voivodeship in the context of sustainable development, (w:) Problemy Ekologii Krajobrazu, t. XLII, PAEK, p. 87-100. • Peterson, G., 2009. GIS Cartography: A Guide to Effective Map Design, CRC Press. Boca Raton. • Racinowski R., 1987, Introduction to settlement physiography, PWN, Warszawa. • Sołowiej D., 1992, Fundamentals of methodology for the assessment of the human environment, Wyd. Nauk. UAM, Poznań. • Szczepanek R., 2017. Spatial information systems with QGIS Part 1 and 2, Politechnika Krakowska, iydział Inżynierii Środowiska - Instytut Inżynierii i Gospodarki Wodnej. Kraków.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	• Analysis of the topographic map • Analysis of geomorphological conditions and making a map of such conditions • Analysis of selected conditions related to topoclimate • Analysis of lithological determinants and making a map based on the geological map of surface formations • Analysis of hydrographic map and making a map of hydrographic determinants • Analysis of the sozological map and making a map of sozological conditions • Analysis of the state and threats to the environment - familiarization with the results of the WIOŚ / GIOŚ studies • Synthesis of studies - threshold analysis of the content of sub-maps - conditions and constraints for spatial management	
Work placement	Not applicable	

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