University of Gdańsk

Subject card

Subject name and code	Environmental basics of spatial management, PG_00150388		
Field of study	Land Management		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	undergraduate studies	Subject group	Obligatory subject group in the field of study Humanistic-social subject group
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	Zakład Badań Krajobrazu i Kształtowania Środowiska -> Instytut Geografii Społ-Ekon i Gospodarki Przestrzennej -> Faculty of Social Sciences -> Rektor		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Barbara Korwel Lejkowska	
	Teachers	mgr Paweł Druet dr Wojciech Staszek dr Sylwia Horska-Schwarz dr hab. Jarosław Czochański	

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						

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_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_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_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_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
[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

Subject contents

- Main elements of the geographical and anthropogenic environment of Pomerania
- Geological past and transformation of the environment
- Tectonic units of PolandNatural and anthropogenic sculptural processes
- Interaction of climate and human activity
- Water resources of Poland and Pomerania
- Vegetation of Poland and Pomerania (geobotanical characteristics and its spatial differentiation)
- Natural environment as a key determinant of spatial management
- Spatial information infrastructure (geoinformation), INSPIRE Directive and functioning of the system
- Legal aspects of access to information and conditions of organisation of geo-information systems,
- Analogue and digital materials - differences and meaning (including: serial topographic and thematic maps for the area of Poland, as well as basic databases and institutional systems
- Geoinformation systems - data sources and their resources (geodetic and cartographic materials and thematic resources)
- Selection, verification and reliability of numerical data - basic problems of spatial data use
- Suitability of data sources and material types for spatial planning and development

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., Czochański J., Hałuzo M., Kubicz G., Mazurkiewicz B., Pomierski E., Radziszewska G., Rekowska J., Rudzińska A., 2014, Update of the Ecophysiographic 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., Pchałek 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., Czochański 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	Podstawowe https://isap.sejm.gov.pl/isap.nsf/search.xsp - Internet-based system of legal acts Uzupełniające 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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