



Subject card

Subject name and code	Ecophysiographic study, PG_00068185						
Field of study	Spatial Development						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	first-cycle 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	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Spatial Planning -> Faculty of Architecture -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Miłosz Marciniak				
	Teachers		dr Miłosz Marciniak				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	30
	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	30		2.0		18.0	50
Subject objectives	The overall objective of the course "Physiographic Studies" is to prepare Spatial Management students to comprehensively identify, interpret, and assess the conditions of the natural environment and to apply the results of these analyses in spatial planning and development processes. The course integrates knowledge from the fields of physical geography, landscape ecology, environmental protection, spatial planning, cartography, and geographic information systems. It thus enables students to understand the environment as a complex system whose structure and functioning are closely linked to existing and planned forms of land use.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_U05] correctly interprets natural phenomena, and when formulating and solving engineering tasks related to spatial management, notices their systemic and non-technical aspects related to the natural environment	he student correctly interprets natural phenomena and processes, as well as the interrelationships among environmental components, and subsequently uses the results of these analyses to assess the suitability, resilience, and limitations of the environment for various forms of spatial development. When formulating ecophysiographic conclusions and recommendations, the student takes into account the systemic, environmental, and non-technical consequences of planned spatial transformations.	[SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools
	[K6_U03] acquires, collects and classifies information in the field of spatial management from a variety of sources, including literature, databases, electronic sources, field observations, surveys and interviews; can perform urban and ruralistic inventory	The student is able to obtain, collect, verify, and classify spatial planning and development information from a variety of sources, including academic and professional literature, databases and repositories, electronic sources, including geoportals, field observations, surveys, and interviews. The student assesses the reliability, relevance, and completeness of this information for the purposes of spatial planning and environmental analyses. The student conducts urban and rural inventories by defining the scope and methodology of the work, preparing appropriate tools, including field survey forms, classification schemes, and GIS layers, carrying out field measurements and documentation, and subsequently presenting the results in cartographic and descriptive forms, including maps, tables, analytical conclusions, and recommendations for spatial planning.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information
	[K6_W04] has knowledge in the field of pro-ecological design and knows the principles of sustainable development of cities and regions; has knowledge of the natural foundations of spatial management and the impact of natural conditions on the processes of economic development on a local, regional and national scale	Student explains the principles of pro-environmental design and the sustainable development of cities and regions, and interprets their application in planning practice. Student characterizes the natural foundations of spatial planning and assesses the impact of environmental conditions on economic development processes at the local, regional, and national scales.	[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge
Subject contents	Course content – exercises The course content is designed to prepare students to: - understand the role of ecophysiographic studies in the spatial planning process; - identify the structure, resources, values, and environmental hazards of the natural environment; - interpret spatial relationships among environmental components; - assess environmental resilience, regenerative capacity, and susceptibility to pressure; - evaluate the compatibility of existing land use and development with natural environmental conditions; - identify environmental suitability and constraints for different land-use functions; - formulate ecophysiographic conditions and guidelines applicable to the preparation of spatial planning documents; - prepare simplified cartographic and descriptive components of an ecophysiographic study.		
Prerequisites and co-requisites	The student should have a basic knowledge of physical geography, biology, environmental protection, and spatial planning and development. The student understands the fundamental relationships between the components of the natural environment and land use patterns. They are able to read topographic and thematic maps, use basic sources of spatial data, and perform simple operations in a GIS environment. They are able to obtain, organize, and critically evaluate information from academic literature, databases, geoportals, and field observations, as well as present the results of analyses in descriptive, tabular, and cartographic forms.		

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Mandatory requirements for passing the course (individual assessment) Submission of all five assignments (assessment of the project team's work); Participation in the final presentation (assessment of the project team's work and individual assessment); Demonstration of the student's own contribution to the team's work (individual assessment); Obtaining at least a satisfactory grade for individual participation in the practical classes (individual assessment).	50.0%	100.0%
Recommended reading	Basic literature	- Uszku Anna 2020 Rola i obligatoryjność opracowań ekofizjograficznych przy sporządzaniu dokumentów planistycznych oraz przegląd organów właściwych do ich opiniowania i uzgadniania funkcjonowania tego instrumentu, Problemy Rozwoju Miast Rocznik 2020 Tom 68(1) - Chochowska A., 2016, Zadania gminy w sferze ochrony środowiska Wybrane zagadnienia, [w:] B. Jeżyńska, E. Kruk (red.), Prawne instrumenty ochrony środowiska, Uniwersytet Marii Curie-Skłodowskiej, Lublin. Dostępne na: https://phavi.umcs.pl/at/attachments/2017/1024/053847prawne-instrumenty-ochrony-srodowiska-red-b-jezynska-e-kruk-.pdf [data dostępu: 01.03.2020]. - Derucka I., 2013, Prawne gwarancje realizacji zadań ochrony środowiska w procedurze planowania przestrzennego w gminie, Prawnicza i Ekonomiczna Biblioteka Cyfrowa. Dostępne na: http://bibliotekacyfrowa.pl/Content/42816/Prawne_gwarancje_realizacji_zadan.pdf. - Fogel P., Kuskowski J., 2015 r., Ocena treści opracowań ekofizjograficznych w zakresie rozpoznawania i diagnozy stanu, powstających na potrzeby kształtowania polityki przestrzennej gmin w Polsce, Instytut Gospodarki Przestrzennej i Mieszkalnictwa, Warszawa. - Kistowski M., 2003 r., Procedura sporządzania opracowań ekofizjograficznych w świetle najnowszych uregulowań prawnych, Uniwersytet Gdański, Katedra Geografii Fizycznej i Kształtowania Środowiska, Gdańsk. Dostępne na: https://kgfiks.oig.ug.edu.pl/kistowski_publicacje_pdf/137.pdf - Papińska E., 2007, Rola opracowań ekofizjograficznych w procesie planowania przestrzennego, Wydawnictwo Politechniki Krakowskiej, Kraków. Dostępne na: https://docplayer.pl/32754535Rola-opracowan-ekofizjograficznych-w-procesie-planowania-przestrzennego-the-role-of-ecophysiological-analyses-in-the-spatial-planning-process.html . - Przewoźniak M., Czochoński J., 2021. Przyrodnicze podstawy gospodarki przestrzennej : ujęcie proekologiczne. Wyd. Bogucki. s. 137-163, 315-330. - Szlachetko J., Korwel-Lejkowska B., 2015, Opracowanie ekofizjograficzne w planowaniu przestrzennym jako przesłanka zrównoważonego rozwoju, Uniwersytet Gdański, Gdańsk. Dostępne na: https://webcache.googleusercontent.com/search?q=cache:375Y6y8lqz0J:https://wuwr.pl/prawo/article/download/10214/9538/+&cd=2&hl=pl&ct=clnk&gl=pl. - Macias A., Bródka S., 2014, Przyrodnicze podstawy gospodarowania przestrzenią. Wyd. PWN. - Kistowski M., 2001, Wybrane problemy metodologiczne i terminologiczne opracowań ekofizjograficznych. - M.Kistowski, 2001, Opracowania ekofizjograficzne a prognozy oddziaływania na środowisko projektów planów zagospodarowania przestrzennego - zagadnienia wstępne, Problemy Ocen Środowiskowych, nr 2 [13], 2001, s.21-28	
	Supplementary literature		
	eResources addresses		

Example issues/ example questions/ tasks being completed	Classes are conducted in project teams of two to four students. Example assignment for Exercise 2: Environmental Identification and Spatial Characterization The team develops a model of environmental functioning, identifying: -recharge and drainage areas; -the main directions of matter and energy flows; -ecological corridors and nodes; -barriers; -water retention areas; -areas of particular climatic importance; -transformed areas; -linkages with the surrounding environment. Expected outputs of the exercise The exercise results in a collection of maps and descriptions presenting the environmental assessment, including: - a profile of the study area; -a table of data sources; -at least four analytical maps; -interpretative comments; -a diagram illustrating environmental functioning; -a list of data gaps and limitations.
Practical activities within the subject	Not applicable

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