

关。GDAŃSK UNIVERSITY 创 OF TECHNOLOGY

Subject card

Subject name and code	Environmental principles of architectural and urban design, PG_00052779								
Field of study	Architecture								
Date of commencement of studies	October 2022		Academic year of realisation of subject			2023/2024			
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			1.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Urban Design and Regional Planning -> Faculty of Architecture								
Name and surname of lecturer (lecturers)	Subject supervisor	dr Miłosz Marciniak							
	Teachers		dr Miłosz Marciniak						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory Project		t	Seminar	SUM	
	Number of study hours	15.0	15.0	0.0	0.0		0.0	30	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity	Participation in classes includ plan	n didactic ed in study	Participation in consultation hours		Self-study		SUM	
	Number of study hours	30		0.0		0.0		30	
Subject objectives	Discussion of the physiographic relations and the identification of threats to the environment at the level of the organization of its components, including relations between people and buildings and between buildings and their surroundings, as well as the principles of sustainable development in design.								
Learning outcomes	Course out	come	Subject outcome		Method of verification				
	[K6_K03] is ready to take responsibility for architectural and urban values in environmental protection and cultural heritage		is ready to take responsibility for architectural and urban values in environmental protection and cultural heritage			[SK5] Assessment of ability to solve problems that arise in practice			
	[K6_W02] knows and understands the rules of gathering information and their interpretation as a part of project concept preparation; issues related to architecture and urban planning in the field of simple design problems solving		knows and understands the rules of gathering information and their interpretation as a part of project concept preparation			[SW1] Assessment of factual knowledge			
	[No_vvu4] knows and understands relations between man and architecture and between architecture and the surrounding environment, and the need to adapt architecture to human needs and scale; problems of physics, technology and functions of buildings to the extent that ensures comfort of use and protection against the effects of weather; methods and means of implementing environmentally responsible sustainable design as well as protection and conservation of the surrounding environment		knows and understands relations between man and the surrounding environment, methods and means of implementing environmentally responsible sustainable design as well as protection and conservation of the surrounding environment			knowledge			

Subject contents							
	Lecture issues:						
	 Lecture issues: Spatial and environmental information. Publicly available GIS platforms Landscape. Basic natural processes - functioning of the natural environment. Basic concepts of physical and geographical space. Dynamics and evolution of the natural environment. The main features of the geological structure of the Earth, the relationship between the bedrock and the topography. Assessment of soil and construction conditions. Assessment of the relief. Hydrological conditions. Assessment of the relief. Hydrological conditions. Yegetation as an important element of the terrain physiognomy. Forms of nature protection. Nature protection. Nature conditions in the legal system. Regulations concerning ecophysiographic studies. Mechanisms and conditions of anthropopression, effects of anthropopressure. Subject of exercises Land falls, land suitability for development Assessment of the risk of erosive processes Determining the boundaries of local catchments - slopes and directions of runoff surface water Determining the direction of runoff of the groundwater horizon 1, classification of the suitability of the site for development 1, 8 Determining the boundaries of the flooplain Forest habitat types, their physiognomy and resistance to anthropopressure. Health properties of 						
	 Forest habitat types, their physi selected plant communities 	iognomy and resistance to anthropop	pressure. Health properties of				
	 Assessment of the conditions and possibilities of locating various objects. Protected areas Exposure and the potential length of the lighting time by Wind rose. Cool air flow directions. 						
Prerequisites and co-requisites	Ability to think abow of cause and effect, analysis in the field of general knowledge about natural relations and conditions influencing the directions of spatial organization of architectural objects and infrastructure in the context of environmental protection, physiographic and technical conditions.						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	execution of exercises	100.0%	50.0%				
	test or essay	60.0%	50.0%				
Recommended reading	Basic literature	 Heather Goudie, Landscapes a Introduction, Oxford University Steffen Lehmann, Gaëll Maingu Series of Holistic Principles,Sur Environment and Society 3.2 2 Strahler, Alan H. and Arthur Str Science and Systems of the Hu John Wiley and Sons, New Yor 	ndscapes and Geomorphology: A Very Short University Press, 2010 aëll Mainguy, Green Urbanism: Formulating a nciples,Surveys and Perspectives Integrating iciety 3.2 2010, Vol.3 / n°2 d Arthur Strahler. 2003. Physical Geography: is of the Human Environment. 2nd Edition s, New York.				
	Supplementary literature	 Forman, Richard & Sperling, Daniel & Bissonette, John & Clevenger, Anthony. (2003). Road Ecology: Science And Solutions. Bibliovault OAI Repository, the University of Chicago Press. 					
	eResources addresses Adresy na platformie eNauczanie:						
Example issues/ example questions/ tasks being completed	Exercise 31) On the assigned topographic map in scale 1: 5000, determine the course of the road with the assumed design speed for the speed of 60 km / h, on the route connecting the left and right side of the map. 2) Use the constans till method when develop and calculating direction the route.3) Perform at least one turn of road arc with the correct radius of the arc for the assumed speed.4) Provide:- the adopted contour line,- the gradient of the terrain adopted for a given road category,- segment length (d)- the length of this section (d) on the map scale.						
Work placement	Not applicable						