



Subject card

Subject name and code	Environment protection and sustainable development, PG_00065382						
Field of study	Spatial Development						
Date of commencement of studies	February 2026		Academic year of realisation of subject		2025/2026		
Education level	second-cycle 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	1		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Urban Design and Regional Planning -> Faculty of Architecture -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Miłosz Marciniak				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	5.0	0.0	0.0	0.0	15
	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	15		4.0		31.0	50
Subject objectives	Discussion of the consequences of environmental threats at the ecosystem level. Developing skills to implement the principles of sustainable development by deepening the theoretical knowledge in the field of environmental protection and work on: landscape protection study and landscape audit, ecological corridor in urban space, identification of contaminated areas and ways to carry out remediation.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W01] has in-depth and expanded knowledge of spatial development, urban planning and spatial planning, including activities used in the process of revitalization of degraded areas and ecological design		has structured, theoretically based knowledge, covering key issues in the field of spatial management, ecology and environmental protection. Has detailed knowledge of the causes of degradation of soils, forests, flora, fauna and landscape and other issues related to spatial planning, including social sciences		[SW1] Assessment of factual knowledge		
	[K7_K03] responsibly fulfills his/her professional role as an urban planner and planner in a way that takes into account the changing social, economic, natural and legal conditions; develops his/her scientific and design achievements guided by the principles of professional ethics		is able to set appropriate priorities for the implementation of a task defined by himself or others, is able to think and act in a creative and entrepreneurial manner		[SK5] Assessment of ability to solve problems that arise in practice		
	[K7_U07] is able to direct the process of self-education in the field of urban planning, spatial planning and related fields; obtains information from literature and other appropriately selected sources, interprets and critically evaluates them; formulates and extensively justifies his/her opinion and on this basis is able to prepare a short scientific paper; is able to inspire and organize the learning process of others		is able to obtain information from literature, databases and other sources; collects, integrates and interprets empirical data from the field of spatial management, defines environmental threats and on this basis is able to prepare a short scientific paper, is able to draw conclusions and formulate and detailedly justify his/her opinions		[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject		

Subject contents	Structure, organization, classification and protection of landscapes (priority landscape; landscape values; principles and problems of protection of various types of ecosystems and landscapes; landscape regionalization; threats to landscape resources; ecological landscape structure and ecological landscape systems; principles for conducting a landscape protection study; European Landscape Convention; landscape audit - concept and rules of performance). Forms of nature protection - their environmental role and place in the region's spatial planning system (forms and programs for nature protection - management principles and conditions; ecological patches and corridors - legal basis for designation, functions, structure, typology, threats, development in the zone and around ecological corridors in urban areas). Degradation and protection of environmental components (causes and sources of threats to the aquatic environment - types of pollution, principles of water management and forms of protection; marine water pollution - ship waste, oil spills, exploitation of seabed resources, storage of waste in the sea, legal regulations regarding the protection of the marine environment; causes and effects of degradation of the earth's surface and atmospheric environment in urban areas; causes and effects of destruction of forest and coastal ecosystems - directions for the protection of forests and coastal areas used by tourists; reclamation and remediation of degraded and devastated areas). Environmental monitoring - status of surface, underground and Baltic waters; disposal site control; monitoring of port waters; monitoring of: surface of the earth, atmospheric air, noise, nature, ionizing radiation and electromagnetic fields, local monitoring systems for the state of the environment, integrated monitoring of the natural environment, National Agri-environmental program.		
Prerequisites and co-requisites	knowledge on spatial, natural, social, and economic conditions of spatial management, basics of landscape design and legal conditions of spatial management gathered at previous stages of study; biological and ecological knowledge obtained at earlier stages of education		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exercise 1	100.0%	20.0%
	exercise 4	100.0%	10.0%
	exercise 2	100.0%	15.0%
	test	60.0%	40.0%
	exercise 3	100.0%	15.0%
Recommended reading	Basic literature Chmielewski T.J., Systemy krajobrazowe. Struktura - funkcjonowanie - planowanie. PWN, Warszawa, 2012. Żarska B., Ochrona krajobrazu. Wyd. SGGW, Warszawa, 2011. Europejska Konwencja Krajobrazowa, 2000. Zasady wykonywania audytu krajobrazowego (Rozporządzenie Rady Ministrów z dnia 11 stycznia 2019 r. w sprawie sporządzania audytów krajobrazowych - Dz.U. 2019 poz. 394). Symonides E., Ochrona przyrody. Wydanie nowe zmienione i uzupełnione. Wyd. Uniw. Warszawskiego, Warszawa, 2014. Koncepcja sieci ekologicznej województwa pomorskiego dla potrzeb planowania przestrzennego, PBPR, Gdańsk, 2014. Natura 2000 w planowaniu przestrzennym - rola korytarzy ekologicznych. MOŚ, 2009. Przewoźniak M., Czocharński J., Przyrodnicze podstawy gospodarki przestrzennej. Ujęcie proekologiczne. BWN, Poznań, 2020. Karaczun Z.M., Obidoska G., Indeka L., Ochrona środowiska - współczesne problemy. Wyd. SGGW, Warszawa, 2016. Bolalek J., Ochrona środowiska morskiego - od teorii do praktyki. Wyd. Uniw. Gdańskiego, Gdansk, 2016.		

	Supplementary literature	Studium ochrony krajobrazu województwa pomorskiego, Gdańsk, 2005. Studia przyrodniczo-krajobrazowe województwa pomorskiego, Gdańsk, 2006. Program ochrony środowiska województwa zachodniopomorskiego na lata 2012-2015 z uwzględnieniem perspektywy na lata 2016-2019, Szczecin, 2011. Plit. J., Krajobrazy kulturowe Polski i ich przemiany, Prace Geograficzne IGiPZ nr 253, 2016. Chmielewski T.J. i inni, Ekologiczne i fizjonomiczne koszty bezładu przestrzennego. Prace Geograficzne IGiPZ nr 264, 2018. Chmielewski T.J., Chmielewski S., Kułak A., Wpływ bezładu przestrzennego na krajobrazowe systemy ekologiczne. Studia KPZK, 2018, tom 182 - Studia nad chaosem przestrzennym, cz. 2 - Koszty chaosu przestrzennego. http://journals.pan.pl/skpkz/125267 Kistowski M., Lipińska B., Korwel-Lejkowska B., Studium ochrony krajobrazu województwa pomorskiego (www.kgfiks.oig.ug.edu.pl/mk/kistowski_lipinska_korwel_b_4_9.pdf). Richling A., Solon J., Ekologia krajobrazu. Wyd. PWN, Warszawa, 2011. Kwiatkowska-Malina J., Monitoring środowiska przyrodniczego. Wyd. Politechniki Warszawskiej, Warszawa, 2012 dyrektywy UE, konwencje, ustawy i rozporządzenia oraz dokumenty planistyczne z zakresu ochrony środowiska i audytu krajobrazowego.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Meanings of the terms "priority landscape" and "ecological landscape system". Factors destabilizing landscape ecological systems. Criteria for assessing the value of the landscape. Functions and threats of ecological corridors. MARPOL 73/78 conventions and OPRC. Sources and types of pollution of the marine environment and coastal zone. Remediation and remediation	
Work placement	Not applicable	

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