University of Gdańsk

Subject card

Subject name and code	Green and Blue Economy in Cities and Regions - lecture, PG_00194284						
Field of study	Geography						
Date of commencement of studies	October 2027		Academic year of realisation of subject	2029/2030			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Optional subject group			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	3		Language of instruction	English			
Semester of study	5		ECTS credits	3.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Department of Hydrology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Joanna Fac-Beneda, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	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		43.0	75
Subject objectives	The classes aim to familiarise students with the concepts of blue-green infrastructure, ecosystem services, environmental justice, and eco-gentrification. Students will learn about nature-based solutions. In addition, the classes will allow students to gain knowledge about the importance of the natural environment for the quality of life in the city. Barriers related to access to and use of green areas will be presented, as well as cities' actions to promote greenery, including examples of the "greenest" cities in the world and in Europe.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOGRL3-W05] knows the interactions between the natural and anthropogenic environments on various spatial and temporal scales, with particular emphasis on the processes and phenomena occurring in the area of the South Baltic Coast and Lake District and the conditions of these interactions	Student umie określić interakcje środowisko-człowiek w różnych skalach przestrzennych i czasowych.	[SW4] test/exam - oral or written
[GEOGRL3-K01] is prepared to critically assess the level of one's knowledge, use it in professional activities and, in case of difficulties, to be assisted by the knowledge of experts	The student is capable of critically assessing their knowledge and knows how to use it professionally.	[SK4] test/exam - oral or written
[GEOGRL3-U01] can dentify and analyze basic natural and socio-economic processes and phenomena, analyze their causes and course, and formulate and discuss basic issues concerning physical-geographical conditions and the social, economic, and political situation and their changes on various spatial scales	The student is able to identify and analyse natural and socio-economic processes and their problems.	[SU4] test/exam - oral or written
[GEOGRL3-U02] can use theoretical knowledge in the field of geography and available sources of information to correctly interpret basic natural, social, economic, and political processes and phenomena	The student is able to interpret basic natural, social and economic processes and phenomena.	[SU4] test/exam - oral or written
[GEOGRL3-U05] can use scientific language and express opinions and discuss topics related to geography in Polish and a foreign language	The student is able to discuss in Polish and English academic language.	[SU4] test/exam - oral or written
[GEOGRL3-W04] has advanced knowledge of the Earth's geographical environment, understood as a unified system of interconnected and interacting components; its diversity, functioning, and dynamics of change, including the interaction of environmental components in the area of the South Baltic Coast and Lake District	The student has knowledge about the environment, its components, processes and dynamics of change.	[SW4] test/exam - oral or written

Subject contents

1. The concept of blue-green infrastructure types of blue-green infrastructure detailed in various contexts, based on different issues;
2. Ecosystem services benefits for the city, threats to services; ecological connectivity, connection of blue-green infrastructure elements;
3. Barriers related to access to and use of green areas, conflicts related to the use and development of green areas, conflicting interests and expectations of residents; formal and informal greenery;
4. The concept of eco-gentrification;
5. Actions taken by Polish cities to promote greenery;
6. Methods of environmental valuation the value of greenery in the city;
7. Green-blue infrastructure and climate change;
8. Adaptation of cities to climate change using blue-green infrastructure, nature-based solutions.

Prerequisites and co-requisites

Basic knowledge of public space management and spatial planning, as well as natural conditions for spatial management.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test/written examination	51.0%	100.0%

Recommended reading	Basic literature	• Iwaszuk E., Rudik G., Duin L., Mederake L.,McKenna D., Sandra Naumann S., Wagner I., 2019, Blue-green infrastructure for mitigating climate change in cities. Technical catalogue. Ecologic Institute i Fundacja Sendzimira, ss.104. • Królikowska J., 2018, Green infrastructure in urbanized areas as the future of eco-engineering, [w:] Sobczuk H., Kowalska B., Water Supply and Wastewater Disposal, Wydawnictwo Politechniki Lubelskiej, Lublin. • Naumann, S., Davis, M., Iwaszuk, E., Freundt, M., Mederake, L., 2020, Blue-green infrastructure for mitigating climate change in cities strategic tools, Fundacja Sendzimira, Berlin Kraków.
	Supplementary literature	• Szajda-Birnfeld E., Pływczyk A., Skarżyński D., 2012, Green roofs. Sustainable water management in urban areas, Wydawnictwo Uniwersytetu Przyrodniczego we Wrocławiu, Wrocław.
	eResources addresses	
Example issues/ example questions/ tasks being completed	• Describe good practices in urban water management. • Green or white roofs? Give your reasons. • Edible landscapes how? Where? When?	
Work placement	Not applicable	

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