

Subject card

Subject name and code	Water in the city, PG_00140225						
Field of study	Biology						
Date of commencement of studies	October 2024		Academic year of realisation of subject				
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		e-learning		
Year of study	3		Language of instruction		Polish Polish language		
Semester of study	6		ECTS credits		2.0		
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 Katarzyna Jereczek-Korzeniewska				
	Teachers		dr Izabela Chlost				
			dr Katarzyna Jereczek-Korzeniewska				
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: 30.0						
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		0.0		20.0	50
Subject objectives	To get acquainted with problems connected with the course of urbanization processes in the world, in Poland.; Recognise and identify the risks and constraints arising from these processes.; Discuss the role of water in the city and the difficulties associated with urban water supply.; Bringing urban water conflicts closer together.; Learning about ways to protect water resources in urban areas.; Learning about basic urban water management problems and sources of hydrological information						

Learning outcomes	Course outcome	Subject outcome	Method of verification
		- The student is familiar with and can list the issues, theories and trends in spatial economics in individual countries and continents, taking into account aspects of the natural environment; they understand their theoretical and practical significance. - The student names and describes, at an advanced level, the concepts of sustainable development and spatial order, and understands their significance for the economy. - The student lists and explains the most important determinants and processes of spatial planning, with particular emphasis on the specific characteristics of Polish maritime areas and Poland. - The student uses academic literature and applies geographical terminology in Polish in the field of hydrology and other disciplines. The student is able to formulate and solve unusual and complex spatial planning problems in accordance with the principles of sustainable development and spatial planning. - The student correctly identifies and explains the determinants of spatial planning in a specific area and forecasts the impact of fundamental social processes on the structure of spatial planning in the broadest sense. - The student analyses and evaluates the causes and course of changes occurring in the aquatic environment on various temporal and spatial scales - The student is able to make decisions independently and take responsibility for the consequences of their own actions and those of their team. They understand the need for continuous personal and professional development. - The student demonstrates an ability to critically evaluate their knowledge and the content they receive relating to methods and forms of spatial planning, sustainable development and spatial order. They demonstrate responsibility for their own preparation for work.	[SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report [SW3] text preparation/written work [SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU3] text preparation/written work [SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK3] text preparation/written work
Subject contents	Introduction - urbanisation (history of urbanisation and characteristics of urbanisation processes) 2. Characteristics of urbanised areas (urban environment, climate of urbanised areas) 3. Pollution in the urban environment 4. Water relations and urbanisation processes (surface water, groundwater) 5. Impact of urbanisation on water quality, on groundwater and on adjacent areas 6. Extreme hydrological phenomena - natural disasters (droughts, floods, tsunamis) 7. Extreme hydrological phenomena - technological disasters 8. Urban hazards and global change 9. Urban water availability 10. The role of water in urban areas (population supply, industrial water supply, sports, recreation, transport) 11. Urban sanitation 12. Slums (e.g. Millennium Programme) 13. Urban water-borne diseases and epidemics 14. Urban water conflicts 15. Urban water supply in the future		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	completion of a credit work - essay	51.0%	100.0%

Recommended reading	Basic literature	• .Bednarek A., 1984, Z badań nad mikroklimatem miasta, [in:] Wpływ zieleni na kształtowanie środowiska miejskiego, PWN, Warszawa • Ciupa T., Suligowski R., 2014, Water in the city, Kom. Hydrograf. PTG, Institute of Geography Jan Kochanowski University, Kielce • Holdys A., 2009, City under the city, Wiedza i Życie (July 2009) • Jałowiecki B., 2009, Czy metropolia jest miasto, Scholar, Warsaw, PDF • Kaniecki A., 2004, Dzieje miasta wodą pisane, Wyd. Poznańskie Towarzystwa Przyjaciół Nauk, Poznań • Kapuściński R., 2007, Rwący nurt historii - zapiski o XX i XXI wieku, Znak Publishing House, Kraków • Kosmala M., Łukaszewicz J., 2006, Influence of trees on water circulation in urban environment, IX Forum of Landscape Architecture, Szczecin • Kowalczak P., 2007, Konflikty o wodę, Przeźmierzowo: Wydawnictwo Kurpisz S.A., Poznań • Kowalczak P., 2011, Wodne dylematy urbanizacji, Wyd. Poznańskie Towarzystwa Przyjaciół Nauk, Poznań • Kundzewicz Z., Kowalczak P., 2008, Zmiany klimatu i ich skutki, Wydawnictwo Kurpisz S.A., Poznań • Łupienko A., Zabłocha-Kos A., 2019, Architecture in the city, architecture for the city, vol. 2, Institute of History of the Polish Academy of Sciences, Warsaw • Macias A., Bródka S., 2014, Przyrodnicze podstawy gospodarowania przestrzenią, Wyd. PWN, Warsaw • Schumm S. A., 1997, The Fluvial System, Wiley, New York • Urban water footprint - better urban water management
	Supplementary literature	lack of
	eResources addresses	
Example issues/ example questions/ tasks being completed	1.Can floods be avoided? Water hazards.2.Is a river in a city a curse or a resource/gift?3.What is a water footprint? In search of new solutions.4. urban water footprint - a city's water needs5. How to better manage urban water?	
Work placement	Not applicable	

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