University of Gdańsk

Subject card

Subject name and code	Natural and Human Milieu of the Gdansk Metropolitan Area - lecture, PG_00194279		
Field of study	Geography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Optional subject group 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	English
Semester of study	3	ECTS credits	3.0
Learning profile	academic	Assessment form	credit
Conducting unit	Climate Research Laboratory -> Department of Physical Oceanography and Climate Research -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Mirosława Malinowska	
	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	4.0	41.0	75

Subject objectives	The purpose of the course is to familiarize students with past and present processes, shaping the natural and anthropogenic environment of the Gdansk Metropolitan Area.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOGRL3-U03] can plan and conduct, independently and as part of a team, simple research in the field of geography under the supervision of a scientific advisor, based on the necessary information from professional literature and other sources	plans and prepares, in a group and based on the necessary literature and other sources, a presentation on the geographical environment of a selected district of one of the cities forming the Gdańsk Metropolitan Area	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[GEOGRL3-W02] knows and understands key concepts and theories in geography, as well as advanced processes and phenomena related to spatial diversity and the distribution of processes and phenomena on the Earth's surface at various spatial scales, particularly in Poland	knows the key concepts and theories explaining the processes and phenomena occurring in the Tri-City Metropolitan Area that influence its spatial diversity	[SW2] presentation/project/paper/ report
[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	recognises and analyses natural and socio-economic processes and phenomena occurring in the Gdańsk Metropolitan Area, identifies their causes and possible further course and effects	[SU2] presentation/project/paper/ report
[GEOGRL3-K02] is prepared to bear full responsibility for the actions taken actions and adhere to the principles of professional ethics and principles of intellectual honesty, is aware of the importance of a professional approach in professional life professional life	When preparing a presentation, the student is responsible for the scope of work performed, adheres to the principles of professional ethics and intellectual integrity, and demonstrates a professional approach to his/her duties.	[SK2] presentation/project/paper/ report [SK8] observation of student's independent or team work
[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	knows the interactions between the natural and anthropogenic environments occurring in the Gdańsk Metropolitan Area and their determinants	[SW2] presentation/project/paper/ report
[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	has advanced knowledge of the elements that make up the geographical environment of the Gdańsk Metropolitan Area, forming a unified system of interconnected and interacting components	[SW2] presentation/project/paper/ report

Subject contents

1 Introduction2 Concepts of interaction of natural and anthropogenic environment as (eco)system3 The concept of urban ecology4 Historical outline of the Gdansk Metropolitan Area5 Cultural conditions of the Gdansk Metropolitan Area6 Unique features of the ecosystem of the Gdansk Metropolitan Area7 Directions of environmental-anthropogenic development8 Social responsibility in the management of the ecosystem of the Gdansk Metropolitan Area9 The Gdansk Metropolitan Area and its location in the region. 10 The Gdansk Metropolitan Area in the lake and coastal landscape11 The water network of the Gdansk Metropolitan Area: history and present day. 12 Floods and other extreme events in the Tri-City. 13 Water and sewage management and land reclamation in the Gdansk Metropolitan Area. 14 Climate research in former Gdansk.15 Climate and air quality monitoring network in the Gdansk Metropolitan Area16 Climate of the Gdansk Metropolitan Area and symptoms of its contemporary change17 Topoclimate of selected districts of the Gdansk Metropolitan Area - factors and consequences18 Adaptation to modern climate change in the Gdansk Metropolitan Area and mitigation of its consequences

Prerequisites and co-requisites

English at the B+ level

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	assessment of substantive involvement in preparing a group presentation	51.0%	20.0%
	evaluation of the referencing of the selected task	51.0%	80.0%

Recommended reading	Basic literature	
		Filipiak J., Miętus M., 2019. Studies of the urban climate of Gdańsk and Gdynia. Acta Geographica Lodziensia, 108, 21-34, doi: 10.26485/AGL/2019/108/2.(in Polish)
		Filipiak J., Przybylak R., Oliński P., 2019. The longest one-man weather chronicle (1721-1786) by Gottfried Reyger for Gdańsk, Poland as a source for improved understanding of past climate variability. International Journal of Climatology, 39, 828-842, doi: 10.1002/joc.5845.
		Filipiak J., Malinowska M., 2016, Selected extreme weather events on the Polish coast of the Baltic Sea in the period 2001-2014. Oceanological and Hydrobiological Studies. 45, 3, 405-423, doi: 10.1515/ohs-2016-0036
		Owczarek M., Jakusik E., Wojtkiewicz A., Malik P., 2007, Klimat Gdańska, 1981-2005 [in:] Miętus M., Filipiak J., Wyszkowski A., 200 years of regular meteorological measurements and observations in Gdańsk, IMGW Publishing House, Warsaw, pp.160-182 (in Polish)
		Miejska Strategia Wodna dla Gdańska. Rotterdam: Kuiper Compagnons (2015).Jasińska E., Majewski W., 2004, Flood problems in the city of Gdańsk, [w:] Proceedings of the 37th DE FRA Flood and Coastal Management Conference, London, 1-12Majewski, W. (2008). Urban flash flood in Gdańsk 2001; solutions and measures for city flood management. International Journal of River Basin Management, 6(4), 357367. https://doi.org/10.1080/15715124.2008.9635363Malka, A. GIS-Based Landslide Susceptibility Modelling in Urbanized Areas: Studium przypadku Trójmiasta w Polsce. GeoHazards 2022, 3, 508528. https://doi.org/10.3390/ geohazards3040026.Przetłumaczono z DeepL.com (wersja darmowa)
		Gajewski, R., & Sagan, I. (2023). Old problems - new opportunities, or the socio-economic development of Gdansk. IN C. Obracht-Prondzyński & T. Gleinert (eds.), Gdańsk: the changing face of the city (pp. 111-150). Gdańsk Councillors Association.Lorens, P., Golędzinowska A., Developing Polycentricity to Shape Resilient Metropolitan Structures: the Case of the Gdansk-Gdynia-Sopot Metropolitan Area, Urban Planning, Vol 7, No 3 (2022).Translated with DeepL.com (free version)

	Supplementary literature	Tomczyk A.M., Owczarek M., 2019, Occurrence of strong and very strong heat stress in Poland and its circulation conditions,, Theoretical and Applied Climatology (2020) 139:893-905, doi.org/10.1007/s00704-019-02998-3 Owczarek M., 2007, Variability of biothermal conditions in Gdynia (1951-2005), [in:] Piotrowicz K., Twardosz R. (eds.) Climate fluctuations at different spatial and temporal scales, IGiGP Publishing House of the Jagiellonian University, pp. 297-305 (in Polish) Loew, Peter Oliver, ' Names of PlacesLocalities and Topographical Designations', *Gdańsk: Portrait of a City* (New York, 2024; online edn, Oxford Academic, 30 Apr. 2024), https://doi.org/10.1093/oso/9780197603864.005.0001. Soldatke, N., Sydorów, M., & Żukowska, S. (2024). Assessment of the accessibility of public transport in the Tricity (Poland): analytical use of geographical information systems (GIS) in the context of selected public transport measures. *International Journal of Digital Earth*, *17*(1). https://doi.org/10.1080/17538947.2024.2344586
	eResources addresses	
Example issues/ example questions/ tasks being completed	Characterize a selected district of Gdansk, Gdynia or Sopot taking into account the natural and anthropogenic processes occurring in the district and the interactions between them.	
Work placement	Not applicable	

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