University of Gdańsk

Subject card

Subject name and code	Biodiversity protection in the urban ecosystem, PG_00154791		
Field of study	Natural Resources Conservation		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2028/2029
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	3	Language of instruction	Polish
Semester of study	5	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Avian Ecophysiology -> Department of Vertebrate Ecology and Zoology -> Faculty of Biology -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Agnieszka Ożarowska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	15.0	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	3.0	7.0	25

Subject objectives

1. To learn and understand the basic biotic and abiotic factors shaping biodiversity in urban areas.

2. Understanding natural phenomena and processes occurring in urban areas affecting biodiversity in these areas.

3. Getting knowledge of the principles, methods and techniques of biodiversity protection in urban areas.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OZPL3_U07] The graduate is able to draw correct conclusions on the basis of analysis and synthesis of data from various sources	The student draws correct conclusions based on the analysis and synthesis of data from various sources to predict the impact of human activities on the protection and development of biodiversity in urban areas	[SU8] observation of student's independent or team work
[OZPL3_U02] The graduate can read with comprehension scientific texts in the field of natural sciences in Polish and simple texts in English	The student uses available scientific papers in Polish and simple texts in English	[SU8] observation of student's independent or team work
[OZPL3_W14] The graduate understands the relationship between the achievements of natural sciences and their potential applications in socio-economic contexts, while considering the sustainable use of biodiversity	The student explains the relationship between the scientific achievements and their possible implementation in the sustainable use of biodiversity in urban areas	[SW4] test/exam - oral or written
[OZPL3_W06] The graduate has an advanced understanding of the names and types of natural environments, including their structural and functional characteristics	The student describes the structure and principles of functioning of ecosystems in urban areas	[SW4] test/exam - oral or written
[OZPL3_K08] The graduate is ready to systematically update his/her natural knowledge and to apply it in practice	The student systematically updates her/his knowledge on ecology of urban areas based on scientific sources and knows its practical application in the sustainable use of biodiversity in these areas	[SK8] observation of student's independent or team work

Subject contents

The ecological network of the town/city. Protected areas in urban ecosystem. Ecological sites. Nature reserves. Nature and landscape complexes. Natural monuments. Documentation sites.Spatial planning and development in urban ecosystem in the context of biodiversity protection. Ecological corridors.Protection of valuable natural areas bordering urbanized areas.The role of society in the protection of biodiversity in urban ecosystem.

Prerequisites and co-requisites

Knowledge of ecology, botany and zoology

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
attendance at classes	85.0%	50.0%
written test	51.0%	50.0%

Recommended reading	Basic literature	Andrzejewski R. 1980. Fizjografia i ekologiczne kształtowanie środowiska biotycznego na obszarach zurbanizowanych. Człowiek i Środowisko, t.4, nr 4. Przewoźniak M. 2002. Kształtowanie środowiska przyrodniczego miast. Przykłady z regionu gdańskiego. Wyd. Politechniki Gdańskiej, Gdańsk. Richling A. Solon J. 1996. Ekologia krajobrazu. Wydawnictwo Naukowe PWN, W-wa, ss. 318. Symonides E. 2014. Ochrona przyrody. Wydawnictwo Uniwersytetu Warszawskiego, Warszawa Szponar A. 2003. Fizjografia urbanistyczna. Wydawnictwo Naukowe PWN, W-wa, ss.260. Wolański N. 2006. Ekologia człowieka. Wydawnictwo Naukowe PWN, Warszawa. Zimny H. 2005. Ekologia miasta. W-wa, ss. 233.
	Supplementary literature	Fudali E. 2009. Antropogeniczne zmiany w ekosystemach. Transformacje roślinności. Wyd. Uniwersytetu Przyrodniczego we Wrocławiu, Wrocław. Gaston K.J. (ed.) 2010. Urban Ecology. Cambridge University Press, Cambridge. Luniak M. (red.) 1990. Urban Ecological Studies in Central and Eastern Europe. Ossolineum, Wrocław. Niemela J., Breuste J. H., Guntenspergen G., McIntyre N. E., Elmqvist T., James P. 2011. Urban Ecology: Patterns, Processes, and Applications. Oxford University Press, Oxford. Parris K.M. 2016. Ecology of urban environments. Wiley Blackwell, Oxford. Werner N., Kelcey J.G. 2010. Urban Biodiversity and Design. John Wiley & Sons, Oxford. Wheater C.P. 1999. Urban habitats. Routledge, London and New York. Journals: Problemy Ekologii Krajobrazu, Urban Fauna
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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