University of Gdańsk

Subject card

Subject name and code	Ecology of urban areas, PG_00154438		
Field of study	Biology		
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	15.0	0.0	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	2.0	8.0	25

Subject objectives

Gaining knowledge and understanding of the basic factors shaping the functioning of the natural environment in urban areas. Knowledge of species inhabiting urban areas, ability to assess the impact of anthropopressure on species synurbization, ability to valorize natural protection of the urban environment.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_W16] The graduate knows and understands at an advanced level the relationship between the achievements of a chosen field of science and discipline of natural sciences, and the possibilities of their use in socio-economic life, taking into account the sustainable use of biodiversity	The student explains the relationship between the current state of biological knowledge and its possible use in urban area development.	[SW4] test/exam - oral or written
[BIOLL3_K02] The graduate is prepared to critically self-assess his/her own competences and to update and improve his/her knowledge and skills	The student uses argumentation to assess the functioning of urban areas and notices its shortcomings.	[SK4] test/exam - oral or written
[BIOLL3_U05] The graduate will be able to synthesise data from a variety of sources and draw appropriate conclusions	The student uses the available sources of information to predict the impact of human activities on the development and formation of biocenoses in urban areas.	[SU4] test/exam - oral or written

Subject contents	History of human settelment and development of urban areas. Abiotic conditions of urban environment (climate, landform, soil, hydrological conditions). Fauna and flora of towns and cities (historical review, current biodiversity). The role of plant communities in the urban ecosystem. The city as an ecosystem (ecological system). The impact of urban conditions on human health. Protecting urban biodiversity. Nature research in urban areas.
Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
attendance at classes	85.0%	25.0%
written test	51.0%	75.0%

Recommended reading

Basic literature

1. Andrzejewski R., 1980. Fizjografia i ekologiczne kształtowanie środowiska biotycznego na obszarach zurbanizowanych. Człowiek i Środowisko,t.4, nr 4.

2. Luniak M. (red.) 1990. Urban Ecological Studies in Central and Eastern Europe. Ossolineum, Wrocław

3. Przewoźniak M., 2002. Kształtowanie środowiska przyrodniczego miast. Przykłady z regionu gdańskiego. Wyd. Politechniki Gdańskiej, Gdańsk

4. Richling A., Solon J. 1996. Ekologia krajobrazu. Wydawnictwo Naukowe PWN W-wa ss. 318

5. Szponar A. 2003. Fizjografia urbanistyczna. Wydawnictwo Naukowe PWN W-wa ss.260

6. Wolański N. 2006. Ekologia człowieka. Wydawnictwo Naukowe PWN, Warszawa.

7. Zimny H. 2005. Ekologia miasta. W-wa, ss. 233.

	Supplementary literature	Adams, C.E. and K.J Lindsey 2009. Urban Wildlife Management, 2nd ed. CRC Press, Boca Raton. Alberti, M. 2008. Advances in Urban Ecology: Integrating Humans and Ecological Processes in Urban Ecosystems. Springer, Amsterdam. Carreiro, M.M., Y. Song and J. Wu (eds.) 2007. Ecology, Planning, and Management of Urban Forests: International Perspective. Springer, Amsterdam. Douglas, I., D. Goode, M. Houck and R. Wang 2011. The Routledge Handbook of Urban Ecology. Routledge, New York. Gaston, K.J. (ed.) 2010. Urban Ecology. Cambridge University Press, Cambridge. Gehrt, S.D., Riley, S.P.D, and Cypher, B.L. (eds.) 2010. Urban Carnivores: Ecology, Conflict, and Conservation. Johns Hopkins University Press, Baltimore. Mitchell, J.C., R. E. Jung Brown, B. Bartholomew (eds.) Urban Herpetology. Society for the Study of Amphibians & Reptiles, Salt Lake City. Niemela, J., J. H. Breuste , G.Guntenspergen, N. E. McIntyre, T. Elmqvist, P. James 2011. Urban Ecology: Patterns, Processes, and Applications. Oxford University Press, Oxford. Shulenberger, E., W. Endlicher, M. Alberti, G. Bradley, C. Ryan, C. ZumBrunnen, U. Simon, and J. Marzluff (eds.) 2008. Urban Ecology: An International Perspective on the Interaction Between Humans and Nature. Springer, Amsterdam. Werner, N. and J.G. Kelcey 2010. Urban Biodiversity and Design. John Wiley & Sons, Oxford.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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