University of Gdańsk

Subject card

Subject name and code	Anthropogenic transformation of ecosystems, PG_00143380						
Field of study	Natural Resources Conservation						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2026/2027			
Education level	undergraduate studies		Subject group	Obligatory subject group in the field of study 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				
Conducting unit	Faculty of Biology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Renata Afranowicz-Cieślak				
	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		0.0		0.0	30
Subject objectives	1. Learning about the classification systems of synanthropic plants. 2. Knowledge of anthropopressure factors causing changes in nature and determining the causes and mechanisms of these changes. 3. Understanding the changes of phytocoenoses and their habitats under the influence of human influence. 4. Getting to know methods of research and description of changes in the structure and functions of ecosystems under the influence of human influence.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OZPL3_U06] The graduate is able to make observations and perform basic physical, biological and chemical measurements in the field or laboratory	- determines and distinguishes the effects of various forms of anthropopressure on nature, identifies their causes based on the visible effects of changes	[SU4] test/exam - oral or written
[OZPL3_W05] The graduate understands the fundamental principles and mechanisms of life at the population, biocenosis, and ecosystem levels, as well as the temporal and spatial factors that influence biodiversity.	- characterizes the levels of biological diversity and interactions between organisms and the environment, recognizes disturbances in these interactions due to anthropopressure - knows the relationship between the nature and intensity of changes in flora, fauna, ecosystems and landscapes and the forms of human activity in time and space - recognizes and explains the impact of anthropopressure on specific processes occurring in nature at various levels of its organization	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[OZPL3_W06] The graduate has an advanced understanding of the names and types of natural environments, including their structural and functional characteristics	- knows the basics of the functioning of natural and human-modified natural systems	[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	- sees the need for continuous professional education, updating knowledge about the natural environment and its practical applications	[SK4] test/exam - oral or written

Subject contents

Classifications of synanthropic plants. Indicators of anthropogenic changes in flora. Causes of ecosystem transformations. Dependence of the nature and intensity of changes in flora, fauna, biocenoses and habitats on the intensity of human activity. Changes in ecosystems at various stages of the development of human civilization. Methods of researching changes depending on the spatial and temporal scale. Changes in habitats, phytocoenoses and zoocenoses - their mutual connections; changes at the landscape level. Synanthropization causes, mechanism, effects. The degree of naturalness of ecosystems and their susceptibility to anthropopressure. Degeneration of plant communities. Natural and economic consequences of ecosystem changes. Potential natural vegetation research methodology and application. Forecasting ecosystem changes methodology and practical application.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written assessment	51.0%	100.0%

Recommended reading	Basic literature	Fudali E. 2009. Anthropogenic changes in ecosystems. Ed. Univ. Przyr., Wrocław. Lampert W., Sommer U. 1996. Ecology of inland waters. Ed. PWN, Warsaw. Makohonienko M., Makowiecki D., Kurnatowska Z. (eds.), 2007. Interdisciplinary studies on the environment and culture in Poland. Environment - Man - Civilization, volume I. Bogucki Ed. Scientific, Poznań. Roo-Zielińska E., Solon J., Degórski M., 2007. Assessment of the state and transformation of the natural environment based on geobotanical, soil and landscape indicators. Theoretical foundations and examples of applications. Monographs IGiPZ PAN 9, Warsaw. Symonides E. 2007. Nature conservation. Ed. University of Warsaw, Warsaw. Szmeja J. 2005. Guide to research on aquatic vegetation. Ed. Univ. Gdańsk, Gdańsk. Roberts N. 2014. The Holocene. An Environmental History. Blackwell, Oxford.
	Supplementary literature	Afranowicz-Cieślak R. 2011. The share and role of anthropophytes in the flora of tree stands in the agricultural landscape of Żuławy Wiślane. Acta Botanica Silesiaca 6: 153-166. Jackowiak B. 1990. Anthropogenic changes in the flora of vascular plants in the city of Poznań. Ed. Science. UAM 42, Poznań. Pędziszewska A., Tylmann W., Witak M., Piotrowska N., Maciejewska E., Latałowa M. 2015. Holocene environmental changes reflected by pollen, diatoms, and geochemistry of annually laminated sediments of Lake Suminko in the Kashubian Lake District (N Poland). Review of Paleobotany and Palynology 216: 55-75. Starkel L. (ed.). 1999. Geography of Poland natural environment. Ed. Science. PWN, Warsaw. Sudnik-Wójcikowska B. 1998. Temporal and spatial aspects of the process of synanthropization of flora on the example of selected European cities. Central. Ed. University of Warsaw, Warsaw.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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