University of Gdańsk

Subject card

Subject name and code	Anthropogenic transformation of ecosystems, PG_00198123		
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 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	Faculty of Biology -> Rector		
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	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	2.0	8.0	25

Subject objectives

1. Learning about the classification systems of synanthropic plants.

2. Knowledge of anthropopressure factors causing changes in nature and determining the causes mechanisms of these changes.

3. Understanding the changes of phytocoenoses and their habitats under the influence of human influence.

4. Getting to know the methods of research and description of changes in the structure and functions of ecosystems under the influence human impact.

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	[SU6] demonstration of practical skills
[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 functioning natural and changed by human systems nature	[SW3] text preparation/written work
[OZPL3_K06] The graduate is prepared to demonstrate responsibility for their own and others' safe working conditions in the laboratory and in the field, and is able to recognise hazardous situations and take appropriate action	- is responsible for the entrusted equipment/materials and the safe work of himself and others	[SK6] demonstration of practical skills
[OZPL3_K08] The graduate is ready to systematically update his/her natural knowledge and to apply it in practice	- sees the need for constant professional training, updating knowledge about the natural environment and its practical applications	[SK1] oral statement/conversation/discussion
[OZPL3_W05] The graduate understands the principles and mechanisms of life at the population, biocenosis, and ecosystem levels, as well as the temporal and spatial factors that influence biodiversity.	- characterizes levels biodiversity and mutual influences organisms and environment, recognizes these disorders impacts in connection with anthropopressure - knows character relationships and intensification of changes in flora, fauna, ecosystems and landscapes from forms of human activity in in terms of time and space - recognizes and explains influence anthropopressure on specific processes occurring in nature at different levels of it organization	[SW1] oral statement/conversation/discussion [SW3] text preparation/written work
[OZPL3_U01] The graduate is able to use basic apparatus and research tools, maintains the correct sequence of operations in laboratory and field work and apply the principles of savoir-vivre in practice	- demonstrates the ability to correctly use methods and tools to determine changes in nature as a result of human influence	[SU6] demonstration of practical skills

Subject contents

Field observation of ecosystems with various degrees of transformation. Qualitative and spatial analysis of selected types of ecosystems, with particular emphasis on the Baltic Sea Coast and the Pomeranian Lake District. Analysis of cause-and-effect relationships of changes in selected ecosystems.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written work - report II	51.0%	50.0%
written work - report I	51.0%	50.0%

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. Roberts N. 2014. The Holocene. An Environmental History. Blackwell, Oxford. 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.
	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's 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 cities of Central Europe. Ed. University of Warsaw, Warsaw.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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