University of Gdańsk

Subject card

Subject name and code	Biodiversity/ Biological variety, PG_00103637						
Field of study	Environmental Protection						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
Education level	postgraduate studies		Subject group		Obligatory subject group in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	academic		Assessment form				
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Przemysław Baranow				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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		5.0		15.0	50
Subject objectives	To get knowledge about the definition of biodiversity (at the interspecies, species and ecosystem levels), methods of measuring diversity species, factors (anthropogenic and natural) affecting biodiversity, threats to biodiversity and ways of its protection. To learn about the diversity and variability of living organisms with a special focus on domestic species of flora and fauna of importance economic, sanitary, bioindication, protected, extinct or endangered, as well as key species in the functioning of ecosystems (examples).						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚMU2_W03] Characterises the effects of human interference in the natural environment and explains the mechanisms of reaction of living organisms to its pollution.	Student knows the effects of human interference with the natural environment (including those resulting from environmental pollution) and the resulting changes in flora and fauna	[SW2] presentation/project/paper/ report
[OŚMU2_U01] On the basis of the acquired knowledge, proposes to solve environmental problems.	Student knows how to plan and carry out field surveys using appropriate methods used in the study of fauna and flora and interpret the results in terms of their conservation	[SU2] presentation/project/paper/ report
[OŚMU2_K02] Recognises threats, creates safe work conditions and is responsible for the safety of own and other people's work.	Student recognizes hazards, creates conditions of safe work and takes responsibility for the safety of his own work and that of others	[SK2] presentation/project/paper/ report
[OŚMU2_W06] Analyses the impact of human activities on biodiversity and environmental quality on a local, regional and global scale.	The student describes and analyzes the impact of human activities on the diversity of organisms at the local, regional and global scales.	[SW2] presentation/project/paper/ report
[OŚMU2_W04] Chooses methods, techniques and research tools used in environmental protection.	Selecting appropriate methods, techniques and research tools, student describes the diversity of the of the flora and fauna of Poland and the complex phenomena and processes occurring in nature	[SW2] presentation/project/paper/ report

Subject contents

Review of selected representatives of various systematic groups of plants, fungi and animals. The use of plants and animals by humans (medicine, agriculture, industry, bioindication) and their importance in nature. Review and application of selected methods used in the study of vertebrates and invertebrates. Practical use of keys for the determination of representatives of the national flora and fauna. Determination of species by example of selected groups of organisms. Quantitative indicators of species diversity - methods of calculation.

Prerequisites and co-requisites

None

Assessment methods and criteria

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

Recommended reading

Basic literature

Maćkowiak M., Michalak A. (red.) 2008. Biologia: jedność i różnorodność. Warszawa. (wybrane rozdz.)
Pławilszczikow N. 1972. Klucz do oznaczania owadów. PWRiL, Warszawa.
Rutkowski L. 2008. Klucz do oznaczania roślin naczyniowych Polski Niżowej. Wyd. Nauk. PWN, Warszawa.
Rybak J. I. 2001. Przewodnik do rozpoznawania niektórych bezkręgowych zwierząt słodkowodnych, PWN, Warszawa.
Szafer W., Kulczyński S., Pawłowski B. 1988. Rośliny polskie. PWN, Warszawa. Szweykowska A., Szweykowski J. 2009. Botanika. Tom 1 i 2. PWN, Warszawa. (selected chapters)

Andrzejewski R., Weigle A. 2003. Różnorodność biologiczna Polski. Narodowa Fundacja Ochrony Środowiska., Warszawa.
Bogdanowicz W., Chudzicka E., Pilipiuk I., Skibińska E. [red.] 2004, 2007, 2008, 2014. Fauna Polski charakterystyka i wykaz gatunków. T I-IV. Muzeum i Instytut Zoologii PAN, Warszawa.

Głowaciński Z. 2001 [red.] Polska czerwona księga zwierząt. Kręgowce. PWRiL, WarszawaGłowaciński Z., Nowacki J. [red.] 2005. Polska czerwona księga zwierząt. Bezkręgowce. Instytut Ochrony Przyrody PAN, Kraków i AkademiaRolnicza im. A. Cieszkowskiego, Poznań.Müller E., Loeffler W. 1987. Zarys Mykologii. PWRiL, Warszawa.Rothmaler W., Jäger E., Werner K. 2007. Exkursionsflora von Deutschland. Gefässpflanzen: Atlasband. Spektrum Akademischer Verlag, München.Szafer W., Zarzycki K. (red.) 1977. Szata roślinna Polski. T. 1-2. PWN, Warszawa.Szweykowska A., Szweykowski J. 2016. Botanika. Tom 1 i 2. PWN, Warszawa

	Supplementary literature	Garbarczyk H. (red.) 1983. Świat zwierząt. PWRiL, Warszawa. Weiner J. 2020. Życie i ewolucja biosfery. PWN. Wilson E. O. 1999. Różnorodność życia. PIW, Warszawa. Wszałek-Rożek K., Lazarus M., Afranowicz-Cieślak R., Gołębiewska J., Kuczyńska A., Jarosińska M., Eichmann A., Markowski R. 2018. Endangered flora of Gdańsk Pomerania - its distinctiveness and diversity. Biodiversity: Research and Conservation, vol. 50, p. 53-60.
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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