University of Gdańsk

Subject card

Subject name and code	Populations and plant communities structure, PG_00140095		
Field of study	Biology		
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 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	1	Language of instruction	Polish polish
Semester of study	2	ECTS credits	1.0
Learning profile	academic	Assessment form	
Conducting unit	Pracownia Ekologii Wód Słodkich -> Katedra Ekologii Roślin -> Faculty of Biology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Rafał Chmara	
	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. Knowledge of selected methods used in population ecology and ability to apply them.

2. Ability to describe the phytocenosis in light of the concept of population structure of vegetation.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLMU2_U03] the graduate can critically analyse and select biological information, especially from electronic sources	Knows how to classify and verify the usefulness of plant ecology data/information	[SU3] text preparation/written work
[BIOLMU2_U07] the graduate is able to critically confront biological information from a variety of sources and, on this basis, draw valid conclusions	Orders and classifies empirically collected plant data during field activities using computational methods (statistical and numerical) and then draws conclusions	[SU3] text preparation/written work [SU5] implementation of a problem task
[BIOLMU2_W04] the graduate has an in-depth knowledge of the chosen specialisation in the biological sciences	Identifies and understands the conceptual apparatus used in plant ecology	[SW3] text preparation/written work
[BIOLMU2_W01] the graduate knows and understands natural phenomena and processes at different levels of complexity	Defines and understands the basic concepts of plant ecology	[SW3] text preparation/written work
[BIOLMU2_K02] the graduate is ready to work effectively as a member of a team and to comply with the rules of teamwork and take responsibility for the tasks performed	Works in a team during fieldwork and data analysis	[SK8] observation of student's independent or team work
[BIOLMU2_K01] the graduate is ready for initiative and independence of action and feels the need for lifelong learning	Is responsible for the assigned task, follows conceptual and methodological arrangements	[SK8] observation of student's independent or team work

Subject contents

Methods of studying the structure of populations and phytocenoses in natural natural systems. Structural and functional diversity of plant communities. Plant functional traits.
Methods of biometric and cartographic analysis, techniques for establishing plots. Statistical, numerical and cartographic tools for developing results. Concepts, approaches and methodological solutions applicable in solving practical problems of valorization and diagnosis of natural systems.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written colloquium	51.0%	25.0%
report	51.0%	75.0%

Recommended reading

Basic literature

Falińska K. 2021. Ekologia roślin. Wyd. Nauk. PWN, Warszawa, 512 pp.

Falińska K. 2002. Przewodnik do badań biologii populacji roślin. [W:] J. B. Faliński (red.) Vademecum Geobotanicum 4. PWN, Warszawa.

Pugnaire F., Valladares F. 2007. Functional plant ecology. CRC Press, Taylor & Francis, 746 pp.

Supplementary literature

Chmara R., Banaś K., Szmeja J. 2015. Changes in the structural and functional diversity of macrophyte communities along an acidity gradient in softwater lakes. Flora 216: 57-64.

Wysocki Cz., Sikorski P. 2014. Fitosocjologia stosowana w ochronie i kształtowaniu krajobrazu. Wyd. SGGW, Warszawa.

Roo-Zielińska E. 2014. Wskaźniki ekologiczne zespołów roślinnych Polski. PAN, Instytut Geografii i Przestrzennego Zagospodarowania, Warszawa.

Szmeja J. 2006. Przewodnik do badań roślinności wodnej. Wyd. Uniwersytetu Gdańskiego, Gdańsk.

Maarel E. van der ., Franklin J. 2013. Vegetation Ecology. Blackwell Publ., Oxford.

eResources addresses

Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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