University of Gdańsk

Subject card

Subject name and code	Plant ecology, PG_00116831		
Field of study	Biology		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2025/2026
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 Freshwater Ecology -> Department of Plant Ecology -> Faculty of Biology -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Krzysztof Banaś	
	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	0.0	0.0	15

Subject objectives	
	1. to impart basic knowledge of the biology and ecology of plants, the structure and dynamics of their populations and communities. 2. ability to diagnose the natural environment on the basis of the acquired knowledge. 3. ability to describe the phytocenosis in the light of the concept of population structure of vegetation.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_U02] the graduate is able to make observations individually and in teams and to carry out basic physical, biological and chemical measurements in the field or laboratory,	The graduate is able to conduct field observations and perform field or laboratory measurements of physical and chemical features of the abiotic environment and biological features of plants	[SU4] test/exam - oral or written
[BIOLL3_W07] the graduate knows the types of natural environments (habitats) from the structural and functional point of view, selected species of flora and fauna of the coastal areas and methods and forms of nature protection	names and describes basic ecological processes at various levels of natural organization (individual, population, phytocenosis)	[SW4] test/exam - oral or written
[BIOLL3_U01] the graduate is able to use basic apparatus and research tools and follow the correct sequence of operations in laboratory and field work	is able to independently use the equipment and research tools used in plant ecology and maintains the correct order of measurement activities both in laboratory and field work.	[SU4] test/exam - oral or written
[BIOLL3_W05] the graduate knows the rules and describes the mechanisms of life at the population, biocenosis and ecosystem levels and the temporal and spatial determinants of biodiversity	explains the basic rules and describes the mechanisms of functioning of populations, phytocenoses, and ecosystems, as well as the spatial determinants of biodiversity	[SW4] test/exam - oral or written
[BIOLL3_K01] the graduate is ready to evaluate his/her own knowledge and understands the need for continuous learning and development and is open to new ideas	recognizes, appreciates, and promotes knowledge of plant ecology in environmental protection, especially nature conservation	[SK4] test/exam - oral or written

Subject contents

Review of general biological and ecological theories. Adaptations to environmental conditions. Levels of organization. Structure, dynamics, demography and spatial organization of populations. Reproduction, mortality, sex and age distribution of populations. Mathematical models of population growth and survival. Theoretical basis for predicting the fate of populations. Coexistence of plants and animals. Structure and dynamics of phytocoenoses. Succession, regression, degeneration and regeneration of phytocenoses. Persistence of vegetation in time and space.

Prerequisites and co-requisites

Assessment methods and criteria

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

Recommended reading

Basic literature	n/a
Supplementary literature	n/a
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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