

Subject card

Subject name and code	Plant physiology, PG_00207416						
Field of study	Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
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	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		3.0		
Learning profile	academic		Assessment form		exam		
Conducting unit	Department of Experimental Biology and Plant Biotechnology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Anna Aksmann				
	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		2.0		43.0	75
Subject objectives	To present to students the course of basic physiological processes of plants and their relationship with the adaptation of the organism to changing environmental conditions.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[BIOLL3_W01] knows and understands at an advanced level the structure and functioning of organisms at all levels of the organization of life - from the cell (prokaryotic and eukaryotic), through tissues, organs, to the organism - as well as the relationships between them and their adaptations to the environment		The graduate knows and understands at an advanced level the structure and functioning of plant organisms at all levels of life organization - from the cell, through tissues, organs, to the organism - as well as the relationships between them and their adaptations to the environment		[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion		
	[BIOLL3_K05] is ready to perform professional roles responsibly, both individually and in teams, including organizing the work of small teams and taking joint responsibility for the implementation of assigned tasks and the results achieved.		The graduate is ready to work individually and in a team, sharing responsibility for the tasks carried out and their results.		[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work		
Subject contents	The lecture covers selected issues in the field of plant physiology. Processes accompanying seed germination. Respiratory processes. Differentiation and the first stages of seedling growth. Root system - structure and function. Basics of water and mineral management in plants. Leaf - the place of carbohydrate synthesis. Photosynthesis as a basic phytophysiological process. Stem as an element integrating individual parts of the plant. Mechanism of phloem transport of metabolites.						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written or oral exam	51.0%	100.0%
Recommended reading	Basic literature	Szmidt-Jaworska A., Kopcewicz J (red).2020. Fizjologia Roślin Wyd. PWN, Warszawa Kopcewicz J., Lewak S. (red.). 2012. Fizjologia roślin. Wyd. PWN, Warszawa Tukaj Z. (red.). 2012. Przewodnik do ćwiczeń z fizjologii roślin. Wyd. Uniwersytetu Gdańskiego	
	Supplementary literature	Taiz L., Zeiger E., et al., 2015. Plant physiology and development. Sinauer Associates, Inc.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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