

Subject card

Subject name and code	Plant physiology, PG_00154410						
Field of study	Biology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
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		4.0		41.0	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_W04] The graduate is conversant with the course of physiological processes and their relationship to the adaptation of the organism to changing environmental conditions		The graduate knows and understands the basic physiological processes of plants and their relationship with adaptation to changing environmental conditions.		[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion		
	[BIOLL3_W03] The graduate knows the structure and functional relationships at the cellular, tissue, organ and organismal levels		The graduate knows and understands the structure and functional relationships at the cellular, tissue, organ and organismal levels in relation to plant organisms.		[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion		
	[BIOLL3_K04] The graduate is ready to take responsibility for their own work and to follow the rules of teamwork and responsibility for shared tasks		The graduate is ready to take responsibility for his/her own work and is ready to comply with the principles of teamwork and take responsibility for jointly implemented tasks.		[SK1] oral statement/conversation/ discussion		
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
	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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