University of Gdańsk

Subject card

Subject name and code	Plant physiology, PG_00196836						
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		2.0		
Learning profile	academic		Assessment form		credit		
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	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		6.0		14.0	50
Subject objectives	Preparing students to use basic apparatus and research tools used in plant physiology.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_U02] The graduate is able to make observations individually and in teams, and carry out basic physical, biological and chemical measurements in the field or laboratory	The graduate is able to individually and collectively conduct observations and perform physical, biological and chemical measurements in the laboratory used to characterize the physiological state of plant organisms.	[SU1] oral statement/conversation/ discussion [SU6] demonstration of practical skills
[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	The graduate is able to use basic equipment and research tools used in plant physiology. Maintains the correct sequence of activities in laboratory work.	[SU6] demonstration of practical skills [SU8] observation of student's independent or team work
[BIOLL3_W03] The graduate knows and uderstands at an advanced level the 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.	[SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
[BIOLL3_W04] The graduate knows and understands at an advanced level 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.	[SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
[BIOLL3_K04] The graduate is ready to take responsibility for his/ her 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 [SK8] observation of student's independent or team work

Subject contents

Basic physiological processes occurring in plant cells, tissues and organisms, water management of plants, mineral nutrition and the physiological role of mineral elements, elemental analysis of plants, soil properties, light and dark phases of photosynthesis and its products, respiratory activity of plant tissues and organisms, seed germination, reserve materials and methods of their mobilization.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written test of knowledge	51.0%	60.0%
work card	51.0%	40.0%

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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