University of Gdańsk

Subject card

Subject name and code	Plant physiology, PG_00207414						
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		2.0		18.0	50
Subject objectives	Preparing students to use basic apparatus and research tools used in plant physiology.						

<table>
<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[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</td><td>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.</td><td>[SW1] oral statement/ conversation/discussion
[SW2] presentation/project/paper/ report</td></tr>
<tr><td>[BIOLL3_U01] is able to use basic research techniques and tools appropriate for the biological sciences and perform physical, chemical and biological observations and measurements in the laboratory and in the field, individually and in a team, while organizing her/his work appropriately and in a maintained way</td><td>The graduate is able to apply basic techniques and research tools appropriate to plant physiology and perform observations and measurements used to characterize the physiological state of plant organisms, in the laboratory, individually and in a team, while maintaining proper work organization.</td><td>[SU1] oral statement/conversation/ discussion
[SU6] demonstration of practical skills</td></tr>
<tr><td>[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.</td><td>The graduate is ready to work individually and in a team, organize the work of small teams and share responsibility for tasks carried out in the field of plant physiology and the results obtained as part of these tasks.</td><td>[SK2] presentation/project/paper/ report
[SK6] demonstration of practical skills
[SK8] observation of student's independent or team work</td></tr>
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<tr><td>Subject contents</td><td>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.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>written test of knowledge</td><td>51.0%</td><td>60.0%</td></tr>
<tr><td>work card</td><td>51.0%</td><td>40.0%</td></tr>
</table>
</td></tr>
<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>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</td></tr>
<tr><td>Supplementary literature</td><td>Taiz L., Zeiger E., et al., 2015. Plant physiology and development. Sinauer Associates, Inc.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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