

Subject card

Subject name and code	Plant-derived substances in diagnostics, PG_00209159						
Field of study	Medical Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2028/2029		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group		
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		exam		
Conducting unit	Gdańskie Centrum Zasobów Biologicznych -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Wojciech Pokora				
	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		2.0		8.0	25
Subject objectives	To familiarise students with the theoretical aspects of the use of plant-derived substances in basic laboratory research and in biochemical and genetic diagnostics.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[BIOLMEDL3_W11] explains the relationship between the achievements of biology and related disciplines and the possibilities of their use in neuroscience and molecular-biochemical analysis, which can have an impact on socio-economic life		The graduate explains the relationship between plant-derived compounds and the potential for their use in neuroscience and diagnostics.		[SW4] test/exam - oral or written		
Subject contents	The plant as a 'producer' of substances used by man: selected issues in physiology, biochemistry and molecular biology of plants. Secondary metabolites of plants in diagnostics. The use of plant polymers and their derivatives in diagnostic techniques. Plant dyes in the identification of selected cellular and tissue structures. Structure, properties, isolation and diagnostic use of plant lectins. In vitro cultures and GMO plants (including molecular agriculture) in obtaining diagnostic substances.						
Prerequisites and co-requisites	lack						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	written exam		51.0%		100.0%		

Recommended reading	Basic literature	Malepszy S. (2018). Biotechnologia roślin. Wydawnictwo Naukowe PWN, Warszawa. (wybrane zagadnienia)
	Supplementary literature	Alvarez MA. (2014). Plant Biotechnology for Health. Springer International Publishing Switzerland (wybrane zagadnienia) Kopcewicz J., Lewak S. (red.). 2012. Fizjologia roślin. Wyd. PWN, Warszawa (wybrane zagadnienia) Szmidt-Jaworska, Kopcewicz J.(red.). 2020. Fizjologia roślin. Wyd. PWN, Warszawa Taiz L., Zeiger E. (red.). 2015. Plant physiology. The Benjamin/Cummings Publ. Comp. Inc. (wybrane zagadnienia) Tukaj Z. (red.). 2012. Przewodnik do ćwiczeń z fizjologii roślin. Wyd. Uniwersytetu Gdańskiego (wybrane zagadnienia)
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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