University of Gdańsk

Subject card

Subject name and code	Animal cell cultures, PG_00147145						
Field of study	Genetics and Experimental Biology						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2025/2026			
Education level	undergraduate 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	2		Language of instruction	Polish			
Semester of study	4		ECTS credits	1.0			
Learning profile	academic		Assessment form				
Conducting unit	Pracownia Genomiki i Genetyki Człowieka -> Katedra Biologii i Genetyki Medycznej -> Faculty of Biology						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Anna Kloska					
	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						
	Additional information: Lecture with multimedia presentation						
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	Familiarization with methods of isolating animal cells and cultivating them in vitro. Presentation of techniques for working with animal cell lines.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GBEL3_W06] the development and current state of knowledge, as well as the latest trends in molecular genetics and related fields; indicating their relationship with other disciplines in the natural or medical sciences and the possibilities of their practical application.	the graduate is aware of the current state of knowledge and the latest trends in the field of animal cell culture and knows the possibilities of using animal cell culture in practice	[SW4] test/exam - oral or written
[GBEL3_K05] Responsibility for the safety of one's own work and others.	the graduate is responsible for the safety of his own and others' work	[SK4] test/exam - oral or written
[GBEL3_U01] Independently perform practical tasks in the field of biological sciences and related disciplines, formulate research problems, analyze their results, and draw conclusions.	the graduate can analyze the results of cell-based tests	[SU4] test/exam - oral or written
[GBEL3_K08] Responsibility for entrusted equipment/materials and respect for the work of others.	The graduate is responsible for the entrusted equipment and materials as well as his/her work and respects the work of others	[SK4] test/exam - oral or written
[GBEL3_W05] the principles of research planning based on achievements in biological sciences and related fields, the potential application of their results in practice, the principles of operation of equipment and apparatus used in molecular genetics research, and the principle of interpreting biological phenomena and processes based on empirical data in research and practical activities, with consideration for sustainable use of biological diversity.	the graduate has knowledge about the types and conditions of in vitro animal cell culture	[SW4] test/exam - oral or written

Subject contents

Laboratory equipment for the cultivation of animal cells and tissues
Culture conditions, media, materials, methods used for cultivation
Types of animal cell culture in vitro
Primary cultures and cell lines
Three-dimensional and tissue cultures
Problems in cultivating animal cells in vitro
Application of animal cell culture
Cell-based assays

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	S. Stokłosowa, Hodowla komórek i tkanek, Wydawnictwo Naukowe PWN, Warszawa 2012

	Supplementary literature	Segeritz, C. P., & Vallier, L. (2017). Cell Culture: Growing Cells as Model Systems In Vitro. Basic Science Methods for Clinical Researchers,151172. https://doi.org/10.1016/ B978-0-12-803077-6.00009-6Langhans SA (2018) Three-Dimensional in Vitro Cell Culture Models in Drug Discovery and Drug Repositioning. Front. Pharmacol. 9:6. doi:10.3389/fphar. 2018.00006
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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