University of Gdańsk

Subject card

Subject name and code	MSc thesis laboratory, PG_00153648						
Field of study	Biotechnology						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2025/2026			
Education level	Master's studies		Subject group	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	15.0			
Learning profile	academic		Assessment form				
Conducting unit	Intercollegiate Faculty of Biotechnology UG-MUG -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Mariusz Grinholc					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	400.0	0.0	0.0	400
	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	400		0.0	0.0	400	
Subject objectives	The student improves the ability to collect and interpret the obtained experimental data, independently uses methods and computer tools. He/she acquires the ability to independently formulate conclusions based on experimental and literature data. The student implements himself/herself in laboratory work, organising his/her own time in the laboratory. He/she learns to plan experiments, prepare research material for experiments, and learns to organise his/her time and responsibility for the tasks performed.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOTECHMU2_U02] The graduate is able to collect and interpret empirical data; use statistical methods and IT tools in data analysis; formulate conclusions based on empirical data	Collects and interprets empirical data; uses statistical methods and IT tools in data analysis; draws conclusions based on empirical data	[SU3] text preparation/written work [SU5] implementation of a problem task [SU8] observation of student's independent or team work
[BIOTECHMU2_U04] The graduate is able to use scientific information fluently, including English-language information on biotechnology; analyse and select information critically; use electronic sources; use appropriate databases	Is proficient in the use of scientific information, including English-language information on biotechnology; critically analyses and selects information; uses electronic sources; has the ability to use appropriate databases	[SU3] text preparation/written work
[BIOTECHMU2_U06] The graduate is able to prepare, in a targeted manner in Polish and / or English, a written study, a scientific publication in the field of biotechnology using scientific language, including specialist terminology and conceptual apparatus	Can prepare in a targeted manner, in Polish and/or English, a written scientific publication on biotechnology using scientific language including specialised terminology and terminology.	[SU3] text preparation/written work
[BIOTECHMU2_W06] The graduate knows and understands the risks associated with conducting laboratory works, including those resulting from working with infectious material, GMOs and GMMs	Knows the risks associated with conducting laboratory research; including those arising from working with infectious material, GMOs and GMMs	[SW3] text preparation/written work
[BIOTECHMU2_U01] The graduate is able to do laboratory work; plan and carry out an experiment; document activities and results; use complex techniques and research tools under the supervision of a tutor in laboratory work; operate laboratory equipment; apply the principles of occupational health and safety; understand the dangers of working in a laboratory	Has the skills necessary for laboratory work; is able to plan and carry out an experiment; documents activities and results; uses complex research techniques and tools in laboratory work under the guidance of a mentor; is able to operate laboratory equipment; applies occupational health and safety principles; understands the risks of working in a laboratory	[SU3] text preparation/written work [SU5] implementation of a problem task [SU8] observation of student's independent or team work
[BIOTECHMU2_K03] The graduate is willing to plan and organise his/her own work effectively, in particular laboratory work; plan an individual professional career	Effectively plans, organises own work, in particular laboratory work; plans individual career	[SK8] observation of student's independent or team work
[BIOTECHMU2_U08] The graduate is able to learn independently, effectively plan and organize work independently or as part of a team	Learns independently, plans effectively and organises work independently or as part of a team	[SU8] observation of student's independent or team work

Subject contents

Depending on the research topic of the thesis supervisor, the content of the course may include: analysis of protein structure and function using advanced spectroscopic, biophysical and biochemical techniques; deepening knowledge of the biochemistry and biotechnology of plant lipids; application of molecular biology methods in the construction of new-generation antiviral vaccines; analysis of the structure and function of viral proteins; analysis of the molecular mechanism of aggressive cancer cell behaviour and the search for markers for the diagnosis and therapy of these diseases.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Master's thesis	0.0%	100.0%

Recommended reading

Basic literature	Scientific publications (in Polish and in English) related to the topic of the master's project, including scientific publications of the supervisor of the project of the master's project.
Supplementary literature	None
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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