University of Gdańsk

Subject card

Subject name and code	MSc thesis laboratory, PG_00153641						
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	3		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 knows and uses basic principles of safety and hygiene of work in a research laboratory, and is able to solve problems arising in laboratory work and to deal with emergency situations. Within the framework of the course, the student extends his/her laboratory work skills, independently plans and carries out experiments, only consulting their results with the supervisor. The student practices the ability to independently document conducted experiments and their results, and learns to independently operate the research equipment used.						

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<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>[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</td><td>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</td><td>[SU3] text preparation/written work
[SU5] implementation of a problem task
[SU8] observation of student's independent or team work</td></tr>
<tr><td>[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</td><td>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.</td><td>[SU3] text preparation/written work</td></tr>
<tr><td>[BIOTECHMU2_U08] The graduate is able to learn independently, effectively plan and organize work independently or as part of a team</td><td>Learns independently, plans effectively and organises work independently or as part of a team</td><td>[SU8] observation of student's independent or team work</td></tr>
<tr><td>[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</td><td>Collects and interprets empirical data; uses statistical methods and IT tools in data analysis; draws conclusions based on empirical data</td><td>[SU3] text preparation/written work
[SU5] implementation of a problem task
[SU8] observation of student's independent or team work</td></tr>
<tr><td>[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</td><td>Knows the risks associated with conducting laboratory research; including those arising from working with infectious material, GMOs and GMMs</td><td>[SW3] text preparation/written work</td></tr>
<tr><td>[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</td><td>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</td><td>[SU3] text preparation/written work</td></tr>
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<tr><td>Subject contents</td><td>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.</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>Master's thesis</td><td>0.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
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<tr><td>Basic literature</td><td>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.</td></tr>
<tr><td>Supplementary literature</td><td>None</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
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<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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