



Subject card

Subject name and code	DIPLOMA LABORATORY I, PG_00063500						
Field of study	Biotechnology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2026/2027		
Education level	second-cycle studies		Subject group		Optional subject group 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	3		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Chemistry Technology and Biotechnology of Food -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Hanna Staroszczyk				
	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						
	eNauczanie source address: https://enauczanie.pg.edu.pl/2025/course/view.php?id=7792						
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		5.0		15.0	50
Subject objectives	Preparing the student to independently conduct laboratory research as part of their master's thesis, including planning experiments, employing appropriate research methods, and documenting and performing a preliminary analysis of the obtained results.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W06] recognizes the technological and scientific, as well as organizational and economic opportunities and limitations in biotechnology and related fields		has knowledge to recognize the scientific, technological, organizational, and economic possibilities and limitations associated with planning and conducting research for the master's thesis.		[SW1] Assessment of factual knowledge		
	[K7_U04] predicts the interaction of biomolecules and biologically active compounds on living organisms and the course of processes involving them based on knowledge in biology, biotechnology and related fields and computer methods of data analysis, modeling and simulation		predicts and interprets the course of the biological processes under study and the interactions of biomolecules and biologically active compounds, utilizing knowledge of biotechnology and data analysis methods.		[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools		
	[K7_K01] understands the need to constantly update knowledge based on the state of the art in accordance with the latest scientific literature, improve professional skills and the importance of teamwork		understands the need to update knowledge and improve research skills, as well as the importance of teamwork when conducting research for their master's thesis.		[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice		
	[K7_W07] has the skills to design experiments with respect to the protection of intellectual property and the principles of bioethics and applicable legislation		has knowledge to design and conduct experiments related to the subject matter of the master's thesis, while adhering to the principles of intellectual property protection and bioethics, as well as applicable legal regulations.		[SW1] Assessment of factual knowledge		

Subject contents	Course content – laboratory 1. Analysis of scientific literature related to the thesis topic. 2. Planning the research and selecting appropriate research methods and techniques. 3. Preparing research materials and conducting experiments according to the established plan. 4. Operating research equipment and adhering to safety regulations, research ethics, and intellectual property protection standards. 5. Documenting the research process and processing the obtained results using statistical methods and computer tools. 6. Analyzing and critically interpreting the results in the context of the current state of knowledge. 7. Formulating conclusions.		
Prerequisites and co-requisites	The student should possess knowledge and skills acquired during their prior education, particularly in specialized subjects related to the thesis topic. They should be familiar with the fundamentals of planning and conducting experimental research, analyzing and interpreting results, and utilizing scientific literature. Knowledge of laboratory health and safety regulations, intellectual property protection, research ethics, and principles of scientific integrity is required. The student should be prepared to work independently in the laboratory under the supervision of their thesis advisor and to systematically document the research process and results.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Preparation of the theoretical part of the thesis	60.0%	50.0%
	Preparation of the experimental part of the thesis	60.0%	50.0%
Recommended reading	Basic literature	Current scientific literature—particularly articles from scientific journals—related to the subject matter of the thesis.	
	Supplementary literature	Brak	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1. Developing the theoretical part of the thesis 2. Developing the methodology for the experimental part of the thesis 3. Processing and analyzing the results of the experimental work		
Practical activities within the subject	Not applicable		

Document generated electronically. Does not require a seal or signature.