University of Gdańsk

Subject card

Subject name and code	Individual Laboratory II, PG_00196932						
Field of study	Biotechnology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study 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	4		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Intercollegiate Faculty of Biotechnology UG-MUG -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Andrea Lipińska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	20.0	0.0	0.0	20
	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	20		5.0		25.0	50
Subject objectives	To become familiar with the specifics of working in a science laboratory. To acquire the ability to critically self-assess one's own knowledge and skills. To acquire the ability to organise the workplace and manage time effectively.						

<table>
<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>[BIOTECHL3_K01] The graduate is aware of the scope of their own knowledge and skills; demonstrates a willingness to continuously update them and pursue professional development.</td><td>Under the supervision of the instructor or independently, performs laboratory procedures used in biotechnology, in accordance with the instructions, including preparing solutions, performing measurements, and performing analyses. Uses techniques for isolating, purifying, and analyzing material (DNA, RNA, or proteins - other than those used in Individual Laboratory I) from various types of biological material. Operates laboratory equipment such as micropipettes, centrifuges, thermal cyclers, spectrophotometers, and laminar flow cabinets. Documents the course of the experiment, the activities performed, and the results obtained in a laboratory journal or report. (Skill – maintaining documentation)</td><td>[SK2] presentation/project/paper/ report
[SK3] text preparation/written work
[SK8] observation of student's independent or team work</td></tr>
<tr><td>[BIOTECHL3_U08] The graduate is able to learn independently and in a targeted manner, develop his or her competences and plan their improvement.</td><td>Independently searches, selects, and uses scientific sources relevant to the laboratory's (next) topic and laboratory methods, critically assessing their value and relevance. Monitors progress, identifies difficulties, and applies corrective strategies (e.g., changing study methods, additional analysis of material, consulting with the instructor).</td><td>[SU2] presentation/project/paper/ report
[SU3] text preparation/written work
[SU8] observation of student's independent or team work</td></tr>
<tr><td>[BIOTECHL3_U01] The graduate possesses practical skills in performing laboratory procedures, documenting results, and applying techniques necessary in biotechnology, including methods of isolation, modification, selection, and analysis of organisms, tissues, cells, and molecules; has the ability to operate advanced laboratory.</td><td>Is able to identify areas of concern in a specific area of biotechnology, related to the topic of the (next) laboratory, that require further knowledge development.
Demonstrates initiative in searching for current scientific sources and specialized publications related to the research topics in the laboratory.
Understands the need for continuous professional development and keeping up with scientific progress in the area of research related to the given laboratory.
Participates in discussions with a willingness to accept constructive criticism and formulate questions that advance knowledge.</td><td>[SU2] presentation/project/paper/ report
[SU3] text preparation/written work
[SU8] observation of student's independent or team work</td></tr>
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<tr><td>Subject contents</td><td>A subject that develops the student's laboratory skills and his/her competences regarding the critical self-assessment of his/her own knowledge and skills, as well as teaching the organisation of his/her own work and proper time management.</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>Written raport</td><td>51.0%</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>Determined individually for each student - including scientific publications authored by members of the research group in which the course is undertaken.</td></tr>
<tr><td>Supplementary literature</td><td>None</td></tr>
<tr><td>eResources addresses</td><td></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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