

**Subject card**

<b>Subject name and code</b>	Specialisation lab - practical and theoretical preparation for diploma exam (Tutoring), PG_00197665						
<b>Field of study</b>	Biotechnology						
<b>Date of commencement of studies</b>	October 2025	<b>Academic year of realisation of subject</b>			2027/2028		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	3	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	6	<b>ECTS credits</b>			5.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Intercollegiate Faculty of Biotechnology UG-MUG -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr hab. Andrea Lipińska				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	45.0	0.0	0.0	0.0	45
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM		
	<b>Number of study hours</b>	45	20.0	60.0	125		
<b>Subject objectives</b>	The aim of the course is for students to master the knowledge of basic terms and concepts used in biotechnology in its broadest sense. During the course, the student will expand their knowledge of basic techniques and research tools used in biotechnology. The course also aims to strengthen the students' readiness for continuous improvement, updating their knowledge and raising their professional qualifications. In the course, the student will combine the knowledge and skills learned so far to solve specific research problems.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>		<b>Method of verification</b>		
	[BIOTECHL3_W07] The graduate has advanced knowledge of the rules of operation and the possibilities of using research techniques and tools used in biotechnology.		Has knowledge of basic research techniques and tools used in biotechnology		[SW1] oral statement/ conversation/discussion		
	[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.		Is aware of the limitations of his/ her own knowledge and skills; demonstrates a willingness to continually improve, update knowledge and enhance qualifications in biotechnology in the fields of science and life sciences and medical and health sciences		[SK1] oral statement/conversation/ discussion		
	[BIOTECHL3_W09] The graduate possesses structured and advanced knowledge of the terminology and concepts used in biological and medical sciences and related disciplines.		Knows and understands the basic concepts and terminology used in the biological and medical sciences and concepts from related scientific disciplines		[SW1] oral statement/ conversation/discussion		

Subject contents	<p>The curriculum content covers topics in core courses and departmental research projects, including:</p> <ul style="list-style-type: none"> <li>- biochemistry and biotechnology of plant lipids</li> <li>- application of molecular biology tools in the diagnosis of human metabolic, cancer and infectious diseases</li> <li>- diagnostics and photodynamic therapy to combat bacterial infections and cancer</li> <li>- use of beneficial (antagonistic) bacteria, substances produced by them or bacteriophages in the protection of plants against bacterial pathogens</li> <li>- the search for biologically active compounds of plant origin and other compounds (synthetic peptides, nanoparticles, etc.) to combat human and plant pathogens</li> <li>- mechanisms determining the development of disease processes caused by bacteria on plants</li> </ul>		
Prerequisites and co-requisites	Knowledge and skills acquired during the completion of modules M01-M06		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Diploma exam	0.0%	100.0%
Recommended reading	Basic literature	Materials from Modules 01-06 Scientific publications and literature items indicated by the instructors of the courses delivered as part of the syllabus of the Modules 01-06 The latest published materials indicated by the lecturer	
	Supplementary literature	None	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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