

**Subject card**

<b>Subject name and code</b>	Antibiotics and chemotherapeutics, PG_00153680						
<b>Field of study</b>	Biotechnology						
<b>Date of commencement of studies</b>	October 2024	<b>Academic year of realisation of subject</b>				2025/2026	
<b>Education level</b>	undergraduate studies		<b>Subject group</b>				
<b>Mode of study</b>	full-time studies		<b>Mode of delivery</b>			at the university	
<b>Year of study</b>	2		<b>Language of instruction</b>			Polish	
<b>Semester of study</b>	3		<b>ECTS credits</b>			2.0	
<b>Learning profile</b>	academic		<b>Assessment form</b>				
<b>Conducting unit</b>	Dziekanat MW Biotechnologii -> Intercollegiate Faculty of Biotechnology UG-MUG						
<b>Name and surname of lecturer (lecturers)</b>	Subject supervisor		prof. dr hab. Michał Obuchowski				
	Teachers						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	16.0	0.0	0.0	0.0	0.0	16
	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>	16		6.0		26.0	48
<b>Subject objectives</b>	To familiarize students with biologically active substances belonging to antibiotics. Presentation of the mechanism of action and acquisition of antibiotic resistance by microorganisms. A sketch of the history effect of antibiotic use and the increase in antibiotic resistance. To familiarize students with biologically active substances used in chemotherapy. Presentation of the mechanism of action and acquisition of resistance to used chemotherapy drugs.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>		<b>Method of verification</b>		
	[BIOTECHL3_W01] The graduate knows and understands basic biological phenomena at the molecular level, he/she is familiar with their significance for biotechnology.		Students know the molecular basis of major biological processes and their potential usefulness.		[SW4] test/exam - oral or written		
	[BIOTECHL3_W09] The graduate knows and understands the basic concepts and terminology used in biological and medical sciences as well as concepts from related scientific disciplines		The student knows the basic concepts and terms used in biotechnology and related disciplines.		[SW4] test/exam - oral or written		
<b>Subject contents</b>	Definition of antibiotic. Division of antibiotics according to their chemical structure. Mechanisms of action of antibiotics with different chemical structures. Mechanisms of resistance. Definition of chemotherapy drugs. The drug development process. Division of chemotherapy drugs according to their chemical structure and spectrum of action. Mechanism of action of chemotherapy drugs. Antiviral chemotherapeutics. Acquiring resistance to therapies using chemotherapeutics.						
<b>Prerequisites and co-requisites</b>							
<b>Assessment methods and criteria</b>	<b>Subject passing criteria</b>		<b>Passing threshold</b>		<b>Percentage of the final grade</b>		
	Final colloquium		51.0%		100.0%		
<b>Recommended reading</b>	<b>Basic literature</b>		Publications and other materials indicated by the instructor.				
	Supplementary literature		Makarewicz Z, Kwiatkowski ZA, Bacteria, antibiotics, drug resistance, PWN 2018				
	eResources addresses		Adresy na platformie eNauczanie:				

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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