

Subject card

Subject name and code	Microbiology, PG_00154239						
Field of study	Medical Biology						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2024/2025		
Education level	undergraduate studies		Subject group		Obligatory subject group in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		3.0		
Learning profile	academic		Assessment form				
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Magdalena Plotka				
	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						
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		6.0		39.0	75
Subject objectives	Understanding the relationship between the structure and function of bacteria. Understanding the relationships between basic metabolic processes. Understanding the mechanisms regulating bacterial metabolism. Learning about the factors determining the virulence of bacteria and viruses. Learning about methods of preventing and combating infections.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMEDL3_K05] jest odpowiedzialny za bezpieczeństwo pracy własnej i innych oraz potrafi rozpoznać sytuacje zagrożenia i podjąć odpowiednie działania	Is responsible for the safety of his/her own work and the work of others and is able to recognize dangerous situations and take appropriate action	[SK8] observation of student's independent or team work
	[BIOLMEDL3_U14] is able to prioritize and organize the work of a small team and work effectively as part of a team	Is able to set priorities and organize the work of a small team in a microbiology laboratory.	[SU8] observation of student's independent or team work
	[BIOLMEDL3_U06] reads with understanding scientific texts in Polish and simple texts in English in the field of medical biology; independently searches and uses available sources of information, including electronic sources	independently searches for and uses available sources of biological information, including electronic sources	[SU8] observation of student's independent or team work
	[BIOLMEDL3_U01] uses basic apparatus and research tools and, maintaining the correct sequence of operations, performs simple physical, biological or chemical observations and measurements in laboratory work in the biological or medical sciences	uses basic equipment and research tools and maintains the correct sequence of activities in the microbiology laboratory	[SU8] observation of student's independent or team work
	[BIOLMEDL3_W16] explains the theoretical basis of experimental methods and lists the most important techniques of biological sciences that can be applied to medical biology and diagnostics	explains the theoretical basis of experimental methods and lists the most important techniques of biological sciences that can be used in medical biology, microbiology and molecular diagnostics	[SW4] test/exam - oral or written
	[BIOLMEDL3_W04] presents the characteristics, systematics and evolution of selected groups of organisms including molecular basis and describes the basic concepts and mechanisms of evolution	Presents the characteristics and taxonomy of selected microorganisms, taking into account their molecular bases.	[SW4] test/exam - oral or written
	[BIOLMEDL3_W01] explains the differences in the structure and function of a prokaryotic and eukaryotic cell	Characterizes the basic components and explains the differences in the structure and functioning of prokaryotic and eukaryotic cells.	[SW4] test/exam - oral or written
Subject contents	topics of practical course: Learning about research techniques and methods used in microbiology. Learning about the principles of safe work in a microbiology laboratory. Review of selected groups of bacteria.		
Prerequisites and co-requisites	completed organic chemistry course		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written test	51.0%	100.0%
Recommended reading	Basic literature	A. Literature required for final crediting of classes (passing the exam): A. 1. used during classes: 1. Markiewicz, Z.: Structure and functions of bacterial envelopes. Warsaw 1993, PWN 2. Kunicki-Goldfinger, W.J.H.: Life of bacteria. Warsaw 2005, PWN 3. Eligia M. Szewczyk: Bacteriological diagnostics, PWN 2006 A. 2. studied independently by the student: 4. Baj, J. and Markiewicz, Z.: Molecular biology of bacteria. Warsaw 2006, PWN 5. Streyer, L.: Biochemistry, PWN 1997	
	Supplementary literature	B. Additional literature: 1. Piekarowicz: Fundamentals of molecular virology, PWN 2004 2. Jawetz, E., Melnick, J., Adelberg, E.: Review of medical microbiology. Warsaw 1991	

	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Sabouraud agar is used for a) Isolation of Staphylococcus b) Identification of Salmonella and Shigella c) Cultivation of fungus d) None of the answers are correct Select the subitem that lists only G(+) bacteria: a) <i>Escherichia, Klebsiella, Vibrio, Bacillus</i> b) <i>Salmonella, Neisseria, Bacillus, Sarcina</i> c) <i>Gaffkya, Vibrio, Escherichia, Citrobacter</i> d) <i>Bacillus, Clostridium, Gaffkya, Micrococcus</i>	
Work placement	Not applicable	

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