

Subject card

Subject name and code	Forensic Microbiology, PG_00188341						
Field of study	Mikrobiologia w kryminalistyce (Wykład)						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2028/2029		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study 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	3		Language of instruction		Polish brak		
Semester of study	5		ECTS credits		1.0		
Learning profile	academic		Assessment form		exam		
Conducting unit	Department of Molecular Biotechnology -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Joanna Jeżewska-Frąckowiak				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	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	15		2.0		8.0	25
Subject objectives	To familiarize students with current issues related to microbiological techniques, phenomena, and threats within the broad field of forensics. Detection, identification, and collection of microbiological evidence in crimes. Issues of bioterrorism and biological weapons.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[AKRL3_W09] The graduate knows and understands the principles of documentation, securing, and interpreting evidence material, as well as the use of microscopic and spectroscopic methods.	answers test and problem questions correctly	[SW4] test/egzamin - ustny lub pisemny
	[AKRL3_W01] The graduate knows and understands, at an advanced level, the laws and theories in the field of chemistry, as well as the basics of biology, mathematics and law constituting general knowledge in the scientific disciplines forming the theoretical foundations relevant to the study program.	answers test and problem questions correctly	[SW4] test/egzamin - ustny lub pisemny
	[AKRL3_K07] The graduate is ready to fulfil social obligations and initiate actions in the public interest.	knows, anticipates and characterises possible sources of microbiological threats	[SK5] realizacja zadania problemowego
	[AKRL3_W04] The graduate knows and understands the basics of biological analysis of evidence material, including principles of DNA identification, proteins and other biological traces.	answers test and problem questions correctly	[SW4] test/egzamin - ustny lub pisemny
	[AKRL3_K04] The graduate is ready to cooperate with representatives of other fields—law, medicine, biology—within forensic expertise.	prepares a procedure plan for collecting a microbiological sample from forensic material/at the scene of the incident	[SK5] realizacja zadania problemowego
Subject contents	Detection, identification, and collection of microbiological evidence in crimes. Bioterrorism and biological weapons issues. New microbiological technologies in forensics.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	worksheet - teamwork	0.0%	49.0%
	exam	51.0%	51.0%
Recommended reading	Basic literature	Bergey's Manual of Systematic Bacteriology Bergey's Manual of Determinative Bacteriology Szewczyk E. M. Diagnostyka bakteriologiczna. Wydawnictwo Naukowe PWN, Warszawa 2005 Brown T. A. [red. wyd. pol. Piotr Węglński] Genomy, Wydawnictwo Naukowe PWN, Warszawa, nowe wydania lub dowolne Kunicki-Goldfinger, W.J.H. Życie bakterii. Wydawnictwo Naukowe PWN, Warszawa 2005 Schlegel, H.G. Mikrobiologia ogólna. Wydawnictwo Naukowe PWN, Warszawa 2000 Libudzisz, Z., Kowal, K., Żakowska, Z. (red.) Mikrobiologia techniczna. Mikroorganizmy i środowiska ich występowania. Wydawnictwo Naukowe PWN, Warszawa 2007	
	Supplementary literature	given during the lecture	
	eResources addresses	Supplementary https://www.sciencedirect.com/science/article/pii/S1344622318301536?via%3Dihub - Forensic Microbiology applications https://www.mdpi.com/2076-2607/12/5/988 - Forensic Microbiology: When, Where and How	
Example issues/ example questions/ tasks being completed	Microbial Species Collection and Storage of Forensic Samples Containing Microorganisms Quantitative and Qualitative Identification of Microorganisms Detection and Identification of Microbial Weapons		
Work placement	Not applicable		

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