

Subject card

Subject name and code	Forensic Microbiology, PG_00188343						
Field of study	Mikrobiologia w kryminalistyce (Ćw.laboratoryjne)						
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 none		
Semester of study	5		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Molecular Biotechnology -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Joanna Jeżewska-Frańkowiak				
	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		5.0		15.0	50
Subject objectives	To familiarize students with practical issues of microbiology in forensics.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[AKRL3_W10] The graduate knows and understands the principles of safe work in chemical and biological laboratories, including procedures for handling hazardous and infectious materials.	correctly answers test and problem questions	[SW4] test/egzamin - ustny lub pisemny
	[AKRL3_U04] The graduate is able to select appropriate equipment for experiments and prepare reports and expert opinions based on analytical results in compliance with legal and ethical standards.	works in a microbiology laboratory, secures evidence, identifies quantitatively and qualitatively, selects methods for identifying microorganisms	[SU2] prezentacja/projekt/referat/raport [SU6] demonstracja umiejętności praktycznych
	[AKRL3_W03] The graduate knows and understands the structure and chemical properties of compounds relevant in forensic examinations.	correctly answers test and problem questions	[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 report, a report on the experiments carried out, and develops a project for the detection of biological weapons	[SK2] prezentacja/projekt/referat/raport [SK5] realizacja zadania problemowego
	[AKRL3_U03] The graduate is able to perform analyses using instrumental methods (spectroscopy, chromatography, microbiological tests) and interpret research results.	works in a microbiology laboratory, secures evidence, identifies quantitatively and qualitatively, selects methods for identifying microorganisms	[SU8] obserwacja samodzielnej lub zespołowej pracy studenta
	[AKRL3_K06] The graduate is ready to follow occupational health and safety regulations in the laboratory and care for the safety of themselves and others.	works in the laboratory independently and in a group, follows the rules of safe work with biological material	[SK8] obserwacja samodzielnej lub zespołowej pracy studenta
	[AKRL3_K03] The graduate is ready to maintain confidentiality of research data and evidence material.	adopts a professional attitude when discussing research results	[SK1] wypowiedź ustna/rozmowa/dyskusja
	[AKRL3_W07] The graduate knows and understands the principles of quality assurance in analytical and forensic laboratories.	prepares a professional report - a report on the results of laboratory work	[SW2] prezentacja/projekt/referat/raport
	[AKRL3_U02] The graduate can plan and organize individual and team work and collaborate with others in team projects (including interdisciplinary teams).	works in a microbiology laboratory, secures evidence, identifies quantitatively and qualitatively, selects methods for identifying microorganisms	[SU8] obserwacja samodzielnej lub zespołowej pracy studenta
Subject contents	Detection, identification, and collection of microbiological evidence in crimes. New microbiological technologies in forensics.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	reports	0.0%	30.0%
	worksheet - teamwork	0.0%	20.0%
	written test	51.0%	50.0%
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 classess	
	eResources addresses		

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

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