Subject card

Subject name and code	Chemical methods of investigating traces of crimes - laboratory classes, PG_00134725						
Field of study	Criminology						
Date of commencement of studies	October 2024		Academic year of realisation of subject	2025/2026			
Education level	Master's studies		Subject group	Optional subject group			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	2		Language of instruction	Polish			
Semester of study	3		ECTS credits	2.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Faculty of Law and Administration -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Paweł Niedziałkowski				
	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		0.0	20.0	50	
Subject objectives	To be introduced to the knowledge of occupational safety and health (OSH) . Acquiring the ability to conduct simple chemical experiments related to forensic technology.Preparation for experimental work by learning and practicing the skills of using laboratory equipment and chemical reagents used in the course of the exercises.Acquiring the ability to work in a team and to prepare documentation of the results of conducted research, their interpretation and form accurate conclusions.Practical introduction to methods and simple apparatus for physicochemical studies.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[KRYMMU2_UW04] He/she can apply legal and professional principles and norms in taking up the activity of criminologist	Has the basic skills necessary to perform experiments in chromatographic analysis of dactyloscopy, dermatoscopy and traseology. Able to use computer techniques for forensic analysis and data storage in chemical laboratory.	[SU2] presentation/project/paper/ report
	[KRYMMU2_KR08] He/ she is aware of the level of own knowledge and skills, and understands the need for lifelong learning	Understands the need for further education in forensic chemical and instrumental analysis in the chemical laboratory. Understands the need for continuous updating of knowledge regarding modern methods of the forensic chemical laboratory.	[SK2] presentation/project/paper/ report
	[KRYMMU2_UW06] He/she is able to propose solutions of concrete problems and carry out procedures connected with solutions in this respect	Has the basic skills necessary for laboratory work. Is able to document activities and results; in laboratory work, applies, under the guidance of a mentor, basic techniques and research tools with particular attention to methods of isolation, modification, selection and analysis of selected forensic traces.	[SU2] presentation/project/paper/ report
	[KRYMMU2_UU03] The graduate demonstrates deepened skills of observing, diagnosing, sensible assessing of complex psychological situations and analyzing motives and patterns of human behaviours	Has the ability to prevent hazards associated with chemical analysis and work in a group. Has the ability to operate basic laboratory equipment in laboratory.	[SU2] presentation/project/paper/ report
	[KRYMMU2_UK02] He/she is prepared for active participation in groups, organizations and institutions connected with the problem of crime and other related phenomena. He/she is also able to communicate with specialists and non-specialists in criminology	Has the competence to work in a team, especially the joint implementation of laboratory work and uncomplicated theoretical studies in basic laboratory techniques; Has competence in the subject under discussion to transfer knowledge to others.	[SK2] presentation/project/paper/ report
	[KRYMMU2_UW02] He/she acquires knowledge independently and develops his/her professional skills using various sources (in native and foreign language) and modern technologies	Has the basic skills necessary for laboratory work. Is able to document activities and results; in laboratory work, applies, under the guidance of a mentor, basic techniques and research tools with particular attention to methods of isolation, modification, selection and analysis of selected forensic traces.	[SU2] presentation/project/paper/ report
	[KRYMMU2_KK01] The graduate is aware of the level of his/her knowledge and skills, and also understands the need of lifelong learning	Understands the need for further education in forensic chemical and instrumental analysis in the chemical laboratory. Understands the need for continuous updating of knowledge regarding modern methods of the forensic chemical laboratory.	[SK2] presentation/project/paper/ report
	[KRYMMU2_WG02] He/she demonstrates deepened knowledge about the character of natural sciences connected with the field of stud, their place in the system of sciences and mutual relations	Mentions natural and synthetic hazardous substances and knows the dangers of working with them. Knows the basic rules of occupational safety and health; understands the dangers of working in a laboratory; knows the dangers of conducting laboratory activities.	[SW2] presentation/project/paper/ report
	[KRYMMU2_KR05] The graduate is ready to prepare and participate in the preparation of social projects taking into consideration legal, economic and political aspects, including the preparation and implementation of projects co-financed by the European Union’s funds	Identifies the hazards associated with the use of chemical substances in household. Behaves caution in handling with chemicals and explosives.	[SK2] presentation/project/paper/ report

	Course outcome	Subject outcome	Method of verification
	[KRYMMU2_UW07] He/she has skills in understanding and analyzing social phenomena and utilizing the analysis in professional work	Has the ability to work in a group.	[SU2] presentation/project/paper/ report
Subject contents	The laboratory exercises are divided into two thematic blocks. The first part consists of qualitative analysis of selected ions and anions by chemical methods. Quantitative analysis of selected acids, bases and analyte found in everyday life (e.g.: wine, or apple juice), and a laboratory on the disclosure of fingerprint traces by chemical and physicochemical methods. The second part of the laboratory exercises consists of qualitative and quantitative analysis used in forensic science using chromatographic techniques including gas chromatography, thin-layer chromatography.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	report from KCHA laboratories	51.0%	60.0%
	report from KAS laboratories	51.0%	40.0%
Recommended reading	Basic literature	1. Z. Ruszkowski, Fizykochemia kryminalistyczna, CLK KGP, Warszawa 1992. 2. J. Moszczyński, Ślady w kryminalistyce, Difin, Warszawa 2007. 3. Stepnowski P., Synak E., Szafranek B., Kaczyński Z. Techniki separacyjne. Wydawnictwo UG 2010.	
	Supplementary literature	1. L. Rodowicz, Kryminalistyczne badanie śladów obuwia, CLK KGP, Warszawa 2000. 2. J. Mazepa, Vademecum techniki kryminalistyki, Oficyna, Warszawa 2009.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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