

Subject card

Subject name and code	Ballistics - lecture, PG_00133121						
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			Obligatory subject group in the field of study		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			2.0		
Learning profile	academic	Assessment form			exam		
Conducting unit	Division of Criminology -> Department of Material Criminal Law and Criminology -> Faculty of Law and Administration -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Adrian Wrocławski				
	Teachers		dr Adrian Wrocławski				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	0.0	0.0	0.0	0.0	20
	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	20		0.0		30.0	50
Subject objectives	Introduction to the legal and forensic issues of firearms and ammunition and the effects and traces of their use in the commission of crimes. To familiarise students with the possibility of using ballistics in evidence. To assimilate and make students understand general concepts related to firearms, ballistics and forensics. To know the basic legal regulations related to firearms and ammunition to be able to interpret and apply these regulations.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[KRYMMU2_UW01] The graduate utilizes theoretical knowledge in the field of criminology and the related scientific disciplines to analyze and interpret problems connected with widely understood crime	The student is able to use and integrate theoretical knowledge in the field of forensic science and criminology and related disciplines. He/she is able to solve specific problems related to forensic science and criminology and to predict the consequences of planned actions.	[SU1] oral statement/conversation/discussion
	[KRYMMU2_KK01] The graduate is aware of the level of his/her knowledge and skills, and also understands the need of lifelong learning	Student is aware of his/her knowledge and skills, understands the need for lifelong learning and is willing to continuously improve his/her knowledge.	[SK1] oral statement/conversation/discussion
	[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	The student has an in-depth knowledge of forensic science and criminology and their connections and relations with other branches of science.	[SW1] oral statement/conversation/discussion
	[KRYMMU2_WG05] He/she has deepened knowledge referring to the ways and tools, including techniques of data and information acquisition appropriate for criminology and criminalistics	Student knows the methods and tools, including data and information extraction techniques, appropriate to the field of study, taking into account the specificities of criminology and forensic science	[SW1] oral statement/conversation/discussion
[KRYMMU2_UK03] He/she prepares responsibly to his/her work, can determine priorities in work and plan work appropriately	The student is able to properly prepare for his/her work and to plan it properly and effectively	[SK1] oral statement/conversation/discussion	
Subject contents	<ol style="list-style-type: none"> 1. The concept of weapons and an outline of the history of their development 2. Forensic systematics of small arms 3. Construction of firearms 4 Ammunition and its classificatio 5. Ballistics (classical and chemical) 6. Forensic-weapons expertise <ol style="list-style-type: none"> (a) technical evaluation of firearms and ammunition (b) individual and group identification of firearms on the basis of traces left behind (c) determination of distance and direction of shots (d) identification of the shooter 7. Gunshot injuries 8. Securing firearms and ammunition and traces of their use for examination. 9. Firearms, bullets and shells casings files 		
Prerequisites and co-requisites	No		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Credit with grade	51.0%	100.0%

Recommended reading	Basic literature	<p>1. J. Widacki (red.), Kryminalistyka, Warszawa 2018</p> <p>2. M. Kulicki, V. Kwiatkowska-Wójcikiewicz, L. Stęпка, Kryminalistyka, Toruń 2009</p> <p>3. D.E. Carlucci, S.S. Jacobson, Ballistics, Theory and Design of Guns and Ammunition, Taylor & Francis Group ,2014</p> <p>4. T. Marcinkowski, Medycyna sadowa dla prawników, Tom. I , Poznań 2000</p> <p>5. J. Wójcikiewicz (red.), Ekspertyza sądowa. Zagadnienia wybrane, Warszawa 2007</p> <p>6. M. Kulicki, J. Wnorowski, Ocena śladów strzałów z pobliza oddanych z 9 mm pistoletu maszynowego wzoru 1963 [w:] Zeszyty Naukowe Akademii Spraw Wewnętrznych, 1974, nr 4</p> <p>7. M. Kulicki, J. Wnorowski, Wyrzut łusek przy strzałach z 9 mm pistoletu maszynowego wz. 1963, [w:] Zeszyty Naukowe Akademii Spraw Wewnętrznych, 1975, nr 8</p> <p>8. M. Kulicki, Kryminalistyczne problemy użycia broni palnej : na przykładzie badań kbk AK, kal. 7,62 mm, Poznań 1972</p> <p>9. L. Radziszewski, Balistyka końcowa pocisków małokalibrowych przy strzelaniu do wybranych celów. Kielce 2000</p>
	Supplementary literature	<p>1. G.Leśniak, M. Pac: Badania teoretyczne i doświadczalne działania mechanizmów broni automatycznej z odprowadzeniem gazów, Warszawa 2017</p> <p>2. Z.Brożek-Mucha, Balistyka chemiczna, Kraków 2008</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	<p>Familiarisation with the principles of the different types of firearms, Familiarisation with the forensic traces left by firearms, Solving basic ballistics tasks, Identifying medico-forensic traces of firearm use, Shooting range activities.</p>	
Work placement	Not applicable	

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