University of Gdańsk

Subject card

Subject name and code	Disclosure of traces and evidence of crime - biology - lecture, PG_00132523		
Field of study	Criminology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Obligatory subject group in the field of study
Mode of study	part-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	2.0
Learning profile	academic	Assessment form	exam
Conducting unit	Faculty of Law and Administration -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Monika Badura	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	10.0	0.0	0.0	0.0	0.0	10

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	10	0.0	40.0	50

Subject objectives

To learn the principles and methods of detecting and preserving biological evidence.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[KRYMMU2_WG02] Has an in-depth knowledge of the nature of natural sciences related to the studied major, their place in the system of sciences and their mutual relations	The student has an in-depth knowledge of the nature of the natural sciences (biology) in relation to the subject studied, their place in the system of sciences and their interrelationships.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[KRYMMU2_WG05] Has an in-depth knowledge of methods and tools, including data and information extraction techniques, specific to criminology and forensic science	The student has an in-depth knowledge of methods and tools, including biological data and information extraction techniques, specific to criminology and forensic science	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[KRYMMU2_K05] Is able to independently and critically complement knowledge and skills, extended by the interdisciplinary dimension	The student is able to acquire knowledge and skills in an independent and critical way, extended by an interdisciplinary dimension (including natural sciences).	[SK1] oral statement/conversation/ discussion [SK4] test/exam - oral or written

Subject contents

Definition and types of biological evidence. Basic methods of detection of the above traces. Micro-traces - disclosure, preservation, significance. Micro-traces most commonly found at crime scenes. Securing control material and collecting comparative material for examination - blood, hair, nails, secretions, saliva, semen, sweat. Examination of genetic material Genetic material - collection of comparison material, DNA testing methods. Botanical evidence - plants or plant fragments, pollen, wood, soil. Methods of collecting and securing material for botanical analysis from the crime scene and physical evidence. Methods of collecting and securing plant samples for DNA analysis. Methods of DNA analysis of traces of plant origin. Acaroentomological traces - methods of collecting, preserving and identifying mites, insects and other arthropods. Methods of visual inspection documentation and principles of protocol writing.

Prerequisites and co-requisites

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>test - multiple choice, open questions</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Branicki W., Kupiec T., Wolańska-Nowak P. 2008. Badania DNA dla celów sądowych. Wydawnictwo IES, Kraków.

Coyle H.M. 2005. Forensic botany. Principles and applications to criminal casework. CRC Press LLC, Boca Raton, London, New York, Washington D.C.

Coyle H.M., Lee C.-L., Lin W.-Y., Lee H.C., Palmbach T.M. 2005. Forensic botany: using plant evidence to aid in forensic death investigation. Croat. Med. J. 46: 606-612.

Izdebska J.N., Jankowski Z. 2006. Demodex brevis and D. folliculorum (Demodecidae): specific human parasites. A comparative study of the effectiveness of diagnostic methods involving autopsy. [W:] Postępy Akarologii Polskiej, Gabryś G., Ignatowicz S. (red.). SGGW, Warszawa: 128- 136.

Kaczorowska E., Draber-Mońko A. 2009. Wprowadzenie do entomologii sądowej. Wydawnictwo UG.

Mildenhall D.C., Wiltshire P.E.J., Bryant V.M. 2006. Forensic palynology: Why do it and how it works. Forensic Sci. Internat. 163: 163-172.

Pawłowski R. 1997. Medyczno-sądowe badanie śladów biologicznych. Kraków Zakamycze.

Perotti A.M., Lee Goff M., Baker A.S., Turner B.D., Braig H.R. 2009. Forensic acarology: an introduction. Exp. Appl. Acarol. 49: 3-13.

Solarz K. 2009. Indoor mites and forensic acarology. Exp. Appl. Acarol. 49:135-142.</td></tr>
<tr><td>Supplementary literature</td><td>Krantz G., Walter D. 2008. Manual of Acarology. Texas A & M University Press.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2"></td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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