

**DESCRIPTION OF COURSE UNIT FOR DOCTORAL STUDIES  
AT VILNIUS UNIVERSITY**

<b>Scientific Area/eas, Field/ds of Science</b>	Medical and Health Sciences (M 000): Medicine (M 001)			
<b>Faculty, Institute, Department/Clinic</b>	Faculty of Medicine Institute of Biomedical Sciences Department of Pathology, Forensic Medicine and Pharmacology			
<b>Course unit title</b> (ECTS credits, hours)	<b>Forensic Examinations of the Deceased Persons</b> 9 credits (240 hours)			
<b>Study method</b>	<b>Lectures</b>	<b>Seminars</b>	<b>Consultations</b>	<b>Self-study</b>
Number of ECTS credits	-	-	2	7
<b>Method of the assessment</b> (in 10 point system)	<p><u>Presentation</u>: the presentation is prepared on a related topic, which is supervised by the coordinating lecturers (the doctoral student must analyse, review and present the latest scientific publications related to the agreed topic).</p> <p><u>Criteria for evaluating the report</u> (minimum score - 5):</p> <p>(a) relevance, novelty and topicality of the presented material (2 points);</p> <p>(b) the general structure and scope of the notification, a clear presentation of the knowledge, argumentation, conciseness and specificity (2 points);</p> <p>(c) summary, presentation and justification of conclusions (1 point);</p> <p>d) raising problematic issues, presenting the application of the reviewed knowledge in the dissertation (3 points);</p> <p>e) organization of visual aids, ability to participate in a discussion, management of questions, oratory skills (2 points).</p>			
<b>PURPOSE OF THE COURSE UNIT</b>				
<p>To know the methodology and methods of forensic medical examinations, formulation and documentation of conclusions, other procedural issues of forensic medical examinations, specific types of forensic medical examinations. To be able to investigate the scene in order to understand the mechanism and circumstances of the injuries, the actions and characteristics of the persons involved, to make reasonable versions of the circumstances of the case, to investigate the victim, accused or other person, to assess the severity of the injuries, to testify in court.</p>				
<b>THE MAIN TOPICS OF COURSE UNIT</b>				
<p>Forensic research methods and their classification. Requirements for expert qualification. Expert and specialist competence. Questions for expert and specialist. Examination report, its components. Expert conclusion concept. Classification of findings according to the degree of certainty (categorical, probabilistic), according to the relationship with the investigated and established fact (positive, negative), according to the nature of the relationship between consequence and cause (conditional, unconditional), according to the choice of one of two (or more) mutually exclusive options (alternatives, mutually exclusive). Refusal of an expert to give an opinion. Evaluation of the expert report. Control of expert reports. Certainty of the act of examination. Elements of certainty. Requirements for the verification of the authenticity of an expert report. Significance of the expert report in the case. Expert survey. The meaning of the expert report and its use. Forensic medical examination of the corpse. External examination of the corpse. Internal examination of the</p>				

corpse. Examination of the corpse at the scene, investigation of the location of the corpse, recording of the position of the corpse, the position of the individual parts of the body in relation to each other. Documentation and photography of cadaver position. Description of clothing, description and documentation of clothing damage. Inspection, photography and retrieval of objects. Examination of traces on objects: identification of the trace, description of the type and location, photography, retrieval and packaging. Sampling for laboratory and other additional tests. Complex evaluation of autopsy examination results, laboratory tests and other additional data. Determination of forensic medical diagnosis. Formulation of expert conclusion. Documentation of the expert report. Additional tests: histological, serological, chemical, bacteriological, botanical, biochemical, spectrographic, electrographic, osteological. Forensic medical examination of newborn corpses. Differential diagnosis of stillbirth. Lung float test. Gastric and intestinal sample float test. Local mechanical injuries (abrasions, bruises, wounds, bone fractures, bone displacements, bone bends, bone compression, bone tissue detachment, internal organ injuries, head injuries, amputation of body parts). General morphological characteristics of head injuries. Fractures of the calvarium and the base of the skull. Epidural, subdural and subarachnoid hemorrhage, the mechanism of their formation, expert significance. Brain contusion, the mechanism of its formation, expert significance. Differential diagnosis of head impact and fall. Common reactions to mechanical injuries (collapse, traumatic shock, fat embolism, air embolism, thromboembolism, traumatic toxicosis, positional compression syndrome, sepsis). Forensic examination of mechanical injuries caused by sharp and blunt objects. Forensic medical examination of gunshot wounds. Rules for determining the severity of health impairment, medical criteria. Mechanical asphyxia, classification (strangulation, compression, obturation, suffocation in a closed environment). Forensic examination of mechanical asphyxia. Forensic examination of sexual offences and sexual conditions. Forensic examination of biological samples. Toxicological forensic examinations. The mechanism of toxins. Diagnosis of intoxication. Classification of toxins. Forensic medical examination of medical errors.

### **RECOMMENDED LITERATURE SOURCES**

1. Pigolkin, Popov. Teismo medicina [Судебная медицина]. Феникс, 2015.
2. V.L. Popov, V.B. Shigeev, L.E. Kuznetsov. Forensic ballistics. 2005.
3. Barry S. Levine, Sarah Kerrigan. Principles of Forensic Toxicology. Springer; 5th ed. 2020 edition.
4. Vincent J.M. DiMaio. Gunshot Wounds: Practical Aspects of Firearms, Ballistics, and Forensic Techniques, Third Edition. CRC Press; 3rd edition, 2015.
5. Michael S. Maloney. Death Scene Investigation: Procedural Guide, Second Edition. CRC Press; 2nd edition, 2017.
6. Vincent J.M. DiMaio. Handbook of Forensic Pathology, Second Edition. CRC Press; 2nd edition, 2006.
7. Matshes, E. W., & Dolinak, D. Forensic pathology: Principles and practice. Oxford: Academic, 2005.
8. Schmitt, K.-U., Niederer, P., Cronin, D. S., Morrison, B., Muser, M. H., & Walz, F. H. Trauma biomechanics: An introduction to injury biomechanics. 2019.
9. Burda, R., et al. Kriminalistikos taktika ir metodika. Mokomasis leidinys nuotolinėms studijoms. Vilnius: LTU Leidybos centras, 2004.
10. Bučiūnas, G. Ikiteisminis tyrimas: procesiniai, kriminalistiniai ir praktiniai aspektai. Mokymo priemonė. Vilnius: Registrų centras, 2009.
11. Bertino, A.J.; Nolan, P. Forensic science: fundamentals & investigations. Mason, (Ohio): South – Western: Cengage Learning, 2009.
12. Ancelis, P., et al. Tyrimo veiksmai baudžiamajame procese. Vadovėlis. Vilnius: Mykolo Romerio universitetas, 2011.
13. Fish, J. T. Crime scene investigation. Amsterdam: Elsevier: Anderson

Publishing, 2011.

14. Saferstein, R. Forensic science: An introduction. Pearson: Prentice Hall, 2011.

15. Garmus A., Kurapka E., Cèpla A. Teismo medicina – V., 2000.

### **CONSULTING LECTURERS**

1. Coordinating lecturer: Sigitas Laima (Assist Prof. Dr.).

2. Sigitas Chmieliauskas (Dr.)

3. Jurgita Stasiūnienė (Assoc. Prof. Dr.).

### **APPROVED:**

By Council of Doctoral School of Medicine and Health Sciences at Vilnius University:  
29<sup>th</sup> of September 2022

Chairperson of the Board: Prof. Janina Tutkuvienė