

Study program: Integrated academic studies in dental medicine
Course title: Forensic Medicine
Teacher: Radenko M. Vuković, Dragan O. Drašković, Goran B. Stojiljković, Stojan M. Petković, Igor S. Veselinović, Vladimir I. Pilija, Dušan M. Vapa, Miljen P. Maletin, Radosav S. Radosavkić
Course status: compulsory
ECTS Credits: 3
Condition: Surgery
<p>Course aim</p> <p>The aim of this course is to provide students with knowledge and skills to understand and correlate medicine and law in order to provide personal physical and psychological integrity. Legal status of dentistry practice, ethical and legal responsibility of medical professionals. Use of acquired knowledge in practice. Development of critical thinking skills and skills necessary for scientific research.</p>
<p>Expected outcome of the course:</p> <p>Practical application of theoretical knowledge. Examination of injured persons, classification and qualification of injuries. Issuance of medical documents - death certificates and medical reports of injuries. Taking biological samples for purpose of identification and toxicology screening. Use of medical knowledge in trial cases. Understanding the principles of causation - complex relations between primary cause (injury or disease), course of injury or disease along with all possible complications, and final consequences (complete or incomplete recovery vs. death).</p>
<p>Course description</p> <p><i>Theoretical education</i></p> <ol style="list-style-type: none"> 1. Brief history of forensic medicine. Basic tasks of forensic medicine. Forensic medicine in relation to other medical and academical branches, primarily law. 2. Diseases and injuries. Deaths due to natural causes. Classification of injuries. Medico-legal aspects of natural death. Relationship between injuries and personal characteristics of the injured. Morbous injuries and traumatic diseases. 3. Dying and death, terms and definitions. Forensic classification of death. Concept of brain death. Medicolegal aspects of transplantation. 4. Tanatology. Postmortem changes. Time of death. 5. Injury related organism reactions. Vital, agonal and postmortal injuries. Embolism. Shock. 6. Mechanical injuries – classification and characteristics. Common and specific features of wounds and injuries. Classification. 7. Physical injuries. Hyperthermia and hypothermia; the effect of heat and cold; electrocution; lightning injuries; radiation injuries. 8. Asphyxia. External and internal autopsy findings. Suffocation. Strangulation. Pressure on the chest and abdomen. Environmental suffocation and suffocating gasses. 9. General and special toxicology. Definitions and classification of poisons. Caustic poisons. Pesticides. Inhalants. Strychnine. Lead, iron and mercury poisoning. Mushroom poisoning. Convulsion poisons. Drugs, chemical warfare. 10. Drug addiction. Opioids, psychostimulants, hallucinogens. 11. Ethyl alcohol – forensic aspects. 12. Craniocerebral injuries – classification and biomechanics. Types of cranial fractures, translation and rotation head injuries, primary and secondary brain injuries. 13. Nutritional, biological and psychic injuries. 14. Accident, suicide, homicide. Suicide vs. homicide - injury patterns. Definition. 15. Forensic expert, legal provisions and basics of medicolegal expertise. 16. Forensic qualification of injuries. Legal provisions and medical criteria. Forensic expertise in civil proceedings (pain, fear, etc.). 17. Legal status of medical practice. Medicolegal aspects of medical interventions. <p><i>Practical education</i></p> <ol style="list-style-type: none"> 1. Institute of Forensic Medicine - introduction to basic fields of work. 2. Work in autopsy room <ul style="list-style-type: none"> – External body examination. Identification. Time and cause of death. – Description of postmortem changes. – Evidence of injuries. Evidence of recent medical and/or surgical interventions. 3. Forensic anthropology and identification. Identification in mass accidents.

4. Medical criminology, biological traces. DNA analysis. Paternity testing.
5. Chemical and toxicology laboratory: GC, GC/MSD, HPLC and UV spectrophotometrics use in forensic chemistry. Methodology of alcohol abuse expertise.
6. Medicolegal expertise (findings, discussion and conclusion) of court files. Elements of analysis and synthesis. Relevant findings in reports, forensic issues and reports.
7. Video presentation of postmortem changes, mechanical injuries, physical injuries, craniocerebral injuries and asphyxia.

Literature

Compulsory

1. DiMaio D, DiMaio VJ. Forensic pathology (Practical Aspects of Criminal and Forensic Investigations) , second Edition. CRC press, 2001.
2. Mason JK. Forensic medicine (an illustrated reference). Chapman and Hall medical, 1993.

Number of active classes	Theoretical classes: 15	Practical classes: 15
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Teaching methods

Student activity assessment (maximally 100 points)

Pre-exam activities	points	Final exam	points
Lectures	40	Written	30
Practices	20	Oral	
Colloquium		
Essay	10		