


Ministry of science and high education RF Ulyanovsk State University Faculty of Medicine named after Biktimirov T.Z., IMEiPC	Form	
F-Educational plan of the discipline		

**APPROVED**  
by the Academic Board of the Institute  
for Medicine, Ecology and Physical Education at  
Ulyanovsk State University  
May 16<sup>th</sup>, 2024r., Record №9/260  
Chairperson  V.V. Mashin  
surname, initials



### EDUCATIONAL PLAN

Subject:	Forensic Medicine
Faculty	medical
Department	General and Clinical Morphology
Course	5

Speciality 31.05.01. «General medicine»

*(code of the speciality, full name)*

Form of education- full-time education

Date of introducing in the instruction process at USU: « 1 » of September 2024.

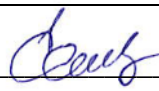
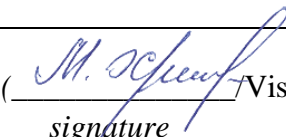
The program was updated at the meeting of the department: № \_\_\_ of \_\_\_ 20\_\_.


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Information about the authors:

Initials	Abbreviation of the department	Degree, scientific rank
Makarov V.M.	General and Clinical Morphology	MD, PhD
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Agreed	Agreed
Head of department General and Clinical morphology, developing discipline	Head of the graduating Department hospital therapy
 /Slesareva E.V./ <i>signature</i> «16» June 2024 yr.	 /Vise-Chripunova M.A. <i>signature</i> «16» June 2024 yr.

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## **1.OBJECTIVES AND AIM OF DISCIPLINE**

The aim of teaching forensic medicine is to teach students the theoretical and practical aspect of forensic medicine, as well as introducing students to clinical thinking and medical behavior in the amount necessary for the successful performance of the professional task by the Doctor, both in the field of forensic investigation and in the field of public health.

### **Tasks of studying the discipline:**

1. Tasks relating to questions of forensic investigation:

-To perform adequate duties of a specialist In forensic medicine during the initial external examination of the corpse at the scene of accident (article 178 of the code of criminal Procedure of the Russian Federation), examination (article 179 if the Code of Criminal Procedure), obtaining biological samples for comparative research (article 202 of the Code of Criminal Procedure) and other investigative actions. Performing the duties of an expert in the production of commissions (Article 200-201 of the Code of Criminal Procedure) and other examinations to address medical and biological issues that arise among law enforcement officers in the process of investigation and judicial review of criminal and civil cases that require special medical care and knowledge.

2. Tasks relating to the day-to-day work of experts and public health problems, taking into account the basics of the legislation of the Russian Federation and the needs of the forensic medical service:

- to perform direct medical duties in the field of health care related to the maintenance of medical records as one of the possible sources of evidence in criminal proceedings (Article 74 of the Code of Criminal Procedure);
- avoiding errors in the description of various injuries, diseases and conditions in medical records;
- avoiding medical errors in the conduct of medical, diagnostic and preventive measures; - Legal regulation of the actions of the doctor, the responsibility of doctors for causing harm to patients, both professional and professional-law offenses.


## **2. PLACE OF THE SUBJECT IN THE STRUCTURE OF GEP:**

Discipline “Forensic Medicine” refers to the basic part of the disciplines of the main educational program.

The study of forensic medicine requires the basic knowledge, skills and competencies of a student, which are formed in the process of mastering the following disciplines: Normal human anatomy, Histology, normal and pathological physiology, Pathological anatomy, Topographic anatomy and surgical surgery, Pediatrics, Occupational diseases, Therapy, Surgery, Epidemiology, Oncology, Propaedeutics of internal diseases, Neurology, Endocrinology, Infectious diseases, Anesthesiology, intensive care , Phthysiology, Immunology, Public health and healthcare.


The discipline “Forensic Medicine” is the preceding one for the preparation of medical residents in the specialties: “Forensic Medicine” and “Pathological Anatomy”.

## **3. LIST OF EXPECTED RESULTS OF INSTRUCTION ON THE SUBJECT (UNIT), CORELATED WITH PLANNED RESULTS OF COMPLETING THE PROGRAM**

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***The study of the subject within the completion of the educational program is directed towards the formation of the following general and professional competences in students:***

<b>Competence index. Content of a competence</b>	<b>The proposed results of the course, correlated with indicators of achievement of competencies</b>
<p><b>GPC- 5</b></p> <p><i>Able to assess morphological, functional, physiological conditions and pathological processes in the human body to solve professional problems and parts of professional competence</i></p>	<p><u>To know:</u> the structure, topography and development of cells, tissues, organs and systems of the body in interaction with their function in pathology, the functional systems of the human body, their regulation and selfregulation when exposed to the external environment in health and disease; structural and functional bases of diseases and pathological processes, causes, main mechanisms of development and outcomes of typical pathological processes, dysfunctions of organs and systems; concepts of etiology, pathogenesis, morphogenesis, pathological morphosis of a disease, nosology, principles of classification of diseases, basic concepts of general nosology; the role of causal factors and disease-causing conditions in the occurrence of typical pathological processes and diseases; primary pathological reactions; the development of cause-andeffect relationships in the pathology of the whole organism; the importance of the body's reactivity in the occurrence, development and outcome of typical pathological processes and diseases; patterns of pathogenesis and hygiene measures of typical pathological processes and diseases; staging of development of typical pathological processes and diseases, their complications and outcomes; syndromes and symptoms of the most common diseases;</p> <p><u>Be able to:</u> use educational, scientific, popular science literature, the Internet for professional activities; visually assess and record changes in the organs and tissues of the corpse, substantiate the nature of the pathological process and its clinical manifestations; give an opinion on the cause of death and formulate a pathological diagnosis; use biological equipment; work with magnifying equipment (microscopes, optical and simple loupes); to give a histological and physiological assessment of the state of various cellular, tissue and organ structures; describe the morphological changes of the studied macroscopic, microscopic preparations and electronic diagrams; <u>To own:</u> methods of assessing the anatomical, physiological, and pathological conditions of the patient;</p>
<p><b>PC 2</b></p>	<p><u>To know:</u> the modern methods of clinical, laboratory,</p>

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<i>Readiness to collect and analyze patient complaints, his medical history, examination results, laboratory, instrumental, pathological, and other tests in order to recognize the condition or establish the presence or absence of diseases.</i>	instrumental examination of patients (including endoscopic, radiological methods, ultrasound diagnostics). <u>To be able to:</u> conduct a primary examination of systems and organs: respiratory, cardiovascular, blood and hematopoietic organs, digestive, endocrine and urinary; outline the volume of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result. <u>To own:</u> interpretation of the results of laboratory, instrumental diagnostic methods for pathology of internal organs.
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#### 4. VOLUME OF THE SUBJECT

**4.1. Volume of the subject in credit points (total): 3 credit points**

**4.2. On types of academic workload (in hours): 108**

Type of academic work	Number of hours (form of education - full-time education)	
	Total according to the plan	Including on semesters
1	2	A
Work of students with a teacher	72	72
Auditory lessons:		
Lectures	18	18
Practical classes and seminars	54	54
lab classes (practical lessons)	-	-
Self-study work	36	36
Concurrent control (number and type: a test, a colloquium, a report)	Testing, solving situational task, marking of the report	Testing, solving situational task, marking of the report
Course paper	-	-
Types of intermediate attestation (examination, test)	credit	credit
Total number of hours on the subject	108	108

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If it is necessary to use partially or exclusively remote educational technologies in the educational process, the table shows the number of hours of work of teaching staff with students for conducting classes in a remote format using e-learning.

#### 4.3. Contents of the discipline (module). Distribution of hours on themes and kinds of study:


Number of hours – 108

The form of training: full time

Name of sections and themes	Total	Activity format					Form of current control
		Classroom studies			Interac tive lessons	Selfstudy work	
		lectures	Practical lessons	Lab work			
1	2	3	4	5	6	7	
<b>PART 1. (GENERAL PART)</b>							
1. introduction, contents and importance of forensic medicine. Basic organization of forensic medicine in the Russian Federation.	8	2	6	-	-	-	Oral test Tests Forensic documenta tion
2. General thanatology. Forensic Examination of the corpse.	8	2	2	-	4	-	interview testing, decision of situational problems. Making expert opinions, medical death certificates
<b>PART 2. (SPECIFIC PART)</b>							
3. Forensic Examination of fetuses and newborns corpse	8	2	6	-	-	-	Oral test, testing, solving situational task

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4. Forensic medical examination in cases of sudden death	12	-	-	-	-	12	Interview, abstract
5. Traumatology in Forensic medicine.	8	2	6	-	-	-	Oral test, testing, solving situational task
6. Forensic examination. Mechanical asphyxia	8	2	6	-	-	-	Oral test, testing, solving situational task
7. Health impairment (injury) and death due to effects physical factors.	8	2	6	-	-	-	Oral test, testing, solving situational task
8. Forensic toxicology.	8	2	6	-	-	-	Oral test, testing, solving situational task
9. defining the severity of injury using Forensic Medicine.	8	2	6	-	-	-	Oral test, testing, solving situational task
10. Corpse examination at the incident site.	8	2	2	-	4	-	Oral test, testing, solving situational task Site inspection report.

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11. forensic examination for physical evidence(individual preparation)	12	-	-	-	-	12	Interview, abstract
12. Forensic medical Examination in regards to investigational materials and judicial cases	12	-	-	-	-	12	Interview, abstract
Total	108	18	46	-	8	36	Final interview, testing

## 5. COURSE CONTENT


### SECTION 1. GENERAL PART

#### **Topic 1. Introduction, contents and importance of forensic medicine. Basic organization of forensic medicine in the Russian Federation.**

To which part of higher medical education the subject lies. The connection of forensic medicine between biological, medical and legal sciences. The importance of forensic medicine for the implementation of the tasks of forensic investigation and practical health care. Basic research methods. Brief information on the origin of forensic science as a science in Europe and in Russia, the main stages of its development. Organization and structure of the forensic medical service in the Russian Federation. Types of forensic medical examination. Organizational structure and composition of the Bureau of Forensic Medical Examination. Rights, duties and responsibilities of forensic experts. Regulatory and legal documents regulating the activities of forensic institutions and forensic experts. Forensic medical documentation and its legal significance.

#### **Topic 2. General thanatology. Forensic Examination of the corpse.**

The study of death. Causes and mechanisms of death. Terminal states. The statement of the fact of death, its initial signs and their definition. The temp of death. Morphology of rapid and agonal death. Forensic medical classification of death. Cadaveric phenomena and the diagnosis of the prescription of death. General questions of the method of forensic medical examination of the corpse. Differences in the forensic medical examination of the corpse from the pathoanatomical. External and internal investigation. Rules and techniques of autopsy. Features of the study postmortem changes, unidentified, dismembered, skeletal, exhumed corpses. Determination of the causes and genesis of death. Principles of construction and formation of forensic diagnosis and expert conclusions.

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## Section 2. SPECIFIC PART

### **Topic 3. Forensic Examination of fetuses and newborns corpse**

Causes of death in newborns. Characteristics of the autopsy technique of the newborn's corpse. Establishment of newborn, live birth and life expectancy after childbirth.

### **Topic 4. Forensic medical examination in cases of sudden death.**

Definition of the concepts of sudden and sudden death. The main goal, tasks and significance of forensic medical research in cases of sudden death of children and adults with diseases of the cardiovascular system, respiratory system, central nervous system and digestion. Sanitary and epidemiological duty of a forensic expert in cases of acute infectious diseases, as the cause of sudden death. The most frequent nosological forms of disease, leading to sudden death of children (pathology of the cardiovascular system, central nervous system and respiratory system).

### **Topic 5. Traumatology in Forensic medicine.**

General issues of forensic traumatology. Mechanical damage and their morphological characteristics: abrasions, bruises, wounds, dislocations, fractures, ruptures and detachments of organs, kneading, separation and crushing of parts of the body. Complications of damage: bleeding, shock, embolism, crash syndrome. The main issues resolved in the examination of mechanical damage.

Injury by blunt hard objects. Types of blunt objects. Mechanisms of the action of blunt objects on the human body and the nature of the damage caused by them. The possibilities of determining the type of blunt object and the mechanism of its action on the characteristics of damage.

Traffic injury. Mechanisms of formation and features of injuries in various types of transport trauma.

Injury caused by falling. Definition and classification of a fall from a height. Characteristics.


Injury by sharp objects. Definition and classification of sharp objects. Mechanisms of damaging action. Morphological features of cut, chopped, chopped, and other Injury. Possibilities of finding sharp objects and mechanisms of their action on the features of Injury.

Gunshot injuries. Firearms and their types. The mechanism of the shot. Injuring factors of the shot. Mechanisms of action of a firearm on clothing, tissues and organs. Setting the distance of the shot. Recognition of entry and outlet of bullet wounds, determination of the direction of the wound channel in the body.

### **Topic 6. Forensic examination. Mechanical asphyxia**

Understanding of hypoxia and mechanical asphyxia. Types of mechanical asphyxiation. General characteristics of the course of mechanical asphyxia, its signs, revealed by external and internal examination of the corpse. Features of the mechanisms of development and morphological changes in various types of mechanical asphyxia.



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### **Topic 7. Health impairment and death due to effects physical factors.**

Injury caused by extreme temperatures. General overheating of the body. Burns and burn disease. Determination of the area and extent of burns. Determination of duration of the action of the flame. Frostbites. Death from the general hypothermia of the body and its signs. Freezing of the corpse.

Electrical injury. Mechanisms of action of an electric current on an organism. Morphology of electrical injury. Genesis of death. The effect of high and low pressure on the body. Decompression disease. Barotrauma. The effect of ionizing radiation on the body. Radiation disease. characteristics of the study of the corpse.

### **Topic 8 Forensic toxicology**

The concept of poisons, classification. Point of entry, individual properties and how a poison determines the process of poisoning. caustic poisoning. Poisoning by destructive poisons. Poisoning by Blood targeting poisons. Poisoning by functional poisons. Inspection of the scene of a suspected death from poisoning. Principles and rules when collection of material for forensic investigation in case of suspected poisoning.

### **Topic 9. Defining the severity of injury using Forensic Medicine.**

Legal qualification of the severity of harm to health. Norms- legal regulation of forensic medical examination of the severity of injury. Rules for determining the severity of injury. Qualifying signs and medical criteria for determining the severity of injury.

### **Topic 10. forensic examination for physical evidence**


Organization of the investigation scene. Participants in the investigation of the scene. Tasks of the doctor when examining the corpse. The stages of the investigation of the scene. The order and technique of inspection of the corpse. Identification, removal and sending of objects from the scene to laboratory research. Procedural registration of the results of the inspection of the scene. Drawing up a plan for the scene of the accident. Photographing the scene of the incident. Inspection report of the scene. Sending the corpse for forensic research.

### **Topic 11. Forensic examination for physical evidence(individual preparation)**

1. Concept of material evidence. Competence of the forensic medical service for the study of physical evidence.
2. Identification, removal, packing of biological samples needed for forensic medical examination.
3. General views on the types and methods of laboratory research and inspection of physical evidence in forensic medicine.

### **Topic 12. Forensic medical Examination in regards to investigational materials and judicial cases (individual preparation)**

1. Reasons for examinations on case materials.
2. Objectives of examinations: medical documents, medical conclusions of forensic experts, reports of inspections of accident sites, interrogations, etc.
3. Organization and methodology for conducting expert examinations on the case materials.

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## 6. TOPICS OF PRACTICAL LESSONS AND SEMINARS

### Part 1. General part

#### **Topic 1. Organizational and procedural basics of forensic medicine.** (practical lesson).

Questions on the topic section.

The concept of examination. The conclusion of the examination as a source of evidence. Types of examinations. The procedure for during examination, mandatory examination.

1. Forensic medical examination, objectives and methods of forensic medical examination. Primary, additional, complex forensic medical examination. Participation of a specialist doctor in investigative actions (examination of the scene and corpse at the place of its detection, conducting an investigative experiment, etc.).
2. Forensic experts and medical experts. Responsibilities and rights, responsibility of experts. Limits of competence of a forensic expert. The expert's common challenges.
3. Examination during preliminary investigation and during a court session. Documentation of forensic medical examination: nomenclature, structure, order of compilation and transfer to investigative and judicial bodies.
4. Organization and structure of the forensic medical service in the Ministry of Health of the Russian Federation. Forensic institutions and officials of these institutions. Principles of subordination of forensic institutions.
5. Official documents regulating the activities of forensic institutions and forensic experts. B) for self-study:
  1. connection of forensic medicine with other medical and legal sciences.
  2. The Importance of forensic medicine for the implementation of forensic investigation and practical health care.


#### **Topic 2. General aspects of forensic thanatology. Demonstration forensic examination of a corpse.**

(Practical lesson Interactive: Educational game, situational analysis).

Questions on the topic section.

A) for discussion at the session:

1. Changes occurring in organs and tissues after death, and their forensic medical value. Reaction of skeletal muscles to mechanical and electrical stimulation. The reaction of the pupil to chemical irritation. Other vital reactions, their significance in determining the duration of death.
2. Early cadaveric changes. Cooling of a corpse, thermometry of a corpse. The phenomenon of partial drying. Cadaver spots, stages and terms of their development, methods of research. Muscle rigor, mechanism and timing of its development. Autolysis. Use of early cadaveric changes to determine the period since death and other expert issues.
3. Late cadaveric changes. Rotting of corpses. Influence of environmental conditions on the course of rotting processes. cadaverous fauna. Types of preservation of late cadaveric changes: mummification, adiposity, peat tanning.
4. External and internal investigation of the corpse: aims, methods, order.
5. Additional research methods, the order of getting sectional material.

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6. Forensic medical documentation for the examination of the corpse. Principles of forensic diagnosis.

B) for self-study:

1. The changes occurring in the organs and tissues after death, their forensic significance. skeletal muscle reaction to the mechanical and electrical stimulation. pupil reaction to chemical stimulation. Other supravital reaction of importance in determining the old death.
2. Features (differences) forensic and post-mortem examination of corpses.

Section 2. Special part

**Theme 3. Forensic Examination of fetuses and newborns corpse.** (practical lesson).

Questions on the topic section.

A) for discussion at the session:

1. Causes of violent and non-violent death of fetuses and newborns. The concepts of infanticide.
2. The concept of neonatal, mature births, live births, vitality, duration of extra-uterine life. Judicial and medical criteria for the establishment of these concepts during the investigation of a newborn's corpse. The main issues tackled in such investigations.
3. Properties of the technique of newborn corpses investigations. The technique of proving it's a live birth.

B) for self-study:

1. Histological picture of breathing lungs, primary and secondary atelectasis, umbilical cord vessels and stillbirth.
2. Principles of forensic diagnosis and conclusion in the examination of newborn corpses.

**Theme 4. Forensic medical trauma. Injury by blunt hard objects**  
(practical lesson).


Questions on the topic section.

A) for discussion at the session:

1. General problems of forensic traumatology. Mechanical injury and their morphological characteristics.
2. Injury by blunt hard objects. Mechanisms of the action of blunt objects on the human body and the nature of the injury caused by them.
3. Transport trauma. Mechanisms of formation and features of injuries in various types of transport trauma.
4. Injury caused by falling. Definition and classification of a fall from a height. Characteristics.

B) for self-study:

1. Complications of damage: Bleeding, shock, embolism, crash syndrome.

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2. Possibility of determining the type of blunt object and its mechanism of action on the features of damage.

**Theme 5. Forensic traumatology.** Damage by sharp objects. Gunshot injuries (practical lesson).

Questions on the topic section.

A) for discussion at the session:

1. Definition and classification of sharp objects. Mechanisms of injuring.
2. Morphological features of a cut, chop, chopped-cut, chopped and other injuries.
3. Possibilities of identifying the sharp objects and their mechanisms of action on the character of injury.
4. Firearms and their types. The mechanism of the shot. Injuring factors of the gunshot.
5. Mechanisms of action of a firearm on clothing, tissues and organs.
6. Signs of damage from shots from various distances. Setting the range of fire of the gunshot wound.
7. Recognition of entry and outlet of bullet wounds, determination of the direction of the wound channel in the body.

B) for self-study:

1. Morphological characteristics and signs of damage from the hunting, atypical, and homemade weapons.
2. The establishment of the form (system) firearms from being coated wound.

**Topic 6. Forensic examination of mechanical asphyxia.**

(practical lesson).

Questions on the topic section.

A) for discussion at the session:

1. Definition of the concept of mechanical asphyxiation, its types.
2. General characteristics of the course of mechanical asphyxia, its signs, revealed by external and internal examination of the corpse.
3. Asphyxia due to strangling: hanging, squeezing with a rope, squeezing with hands.
4. Compression asphyxia: compression of the chest and abdomen.
5. Obturation asphyxia: closure of the mouth and nose, airway blockage of foreign objects, gastric contents, blood. Drowning, its types. Laboratory methods of investigation in the diagnosis of drowning.
6. Death in closed space with lack of oxygen.

B) for self-study:


1. Features mechanisms of development and morphological changes in various types of mechanical asphyxia.
2. Determination of the residence time of the corpse in water.

**Theme 7. Disorder of health and death from the action of physical factors.**

(practical lesson).

Questions on the topic section.

A) for discussion at the session:

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1. Local and general effects of heat. Determination of the injuring factor, area and extent of burns. Examination of corpses found fire. Thermal and heat stroke.
2. Death from hypothermia and its signs on the corpse. Exacerbating factors leading to death from hypothermia. Freezing of the corpse.
3. Electrical Trauma. Morphology of electrical trauma: electrometry, electrical burns, mechanical injury. Genesis of death in electrical trauma.
4. The effect of high and low pressure of gases on the human body. Decompression disease. Barotrauma. Syndromes and death due to changes in the partial pressure of gases.
5. The effect of ionizing radiation on the body. Radiation sickness. Investigating of the corpse.

B) for self-study:

1. Features of damage flame and burning hot liquids, hot gases and objects.
2. Establishment of intravital action damage from heat. Differential diagnosis of lesions at postmortem lifetime exposure to body heat.

### **Theme 8. Forensic Toxicology.**

(practical lesson).

Questions on the topic section.

A) for discussion at the session:

1. Ponyatie about poisons, classification.
2. The dependence of the flow properties of venom poisoning, conditions of administration, the individual characteristics of the organism.
3. Poisoning corrosive, destructive, and functional blood poisons. Their pathogenesis, morphology, causes of death, forensic and laboratory diagnostics.
4. Osobennosti crime scene in cases of suspected death from poisoning. 5. Printsipy and rules of collection of material for forensic chemical study of suspected poisoning.

B) for self-study:

1. Forensic medical diagnosis of food poisoning.
2. Forensic medical diagnosis of mushroom poisoning.

### **Subject 9. Forensic - medical definition of the severity of damage caused to human health.**


(practical lesson).

Questions on the topic section.

A) for discussion at the session:

1. Reasons and basis for examination of surviving people. Place, regulations and methods for conducting examination of survivors, registration of the results of the research.
2. Legal regulation of forensic medical examination of the severity of harm caused to human health.
3. Rules for determining the severity of harm caused to human health.
4. Medical criteria for determining the severity of harm caused to human health.

B) for self-study:

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1. Forensic examination of health status in the "simulation" cases "dissimulation", "aggravation", "self-harm", "self-harm", artificial and feigned illness.
2. Lasting disfigurement of the face as a criterion of serious bodily injury. Definitions and indelible disfigurement. Features of the examination.

### **Subject 10. Inspection of the corpse at the site of its detection.**

(Practical lesson Interactive: Educational game, situational analysis).

Questions on the topic section.

A) for discussion at the session:

1. Normative regulation of inspection of a corpse at the scene. The tasks of a specialist doctor in the field of forensic medicine when examining a corpse at the site of its detection.
2. Order, procedure, stages of inspection of the corpse.
3. Identification, removal and sending of objects from the scene to laboratory research.
4. Features of the examination of the corpse for certain types of death: transport trauma, gunshot injuries, mechanical asphyxia, extreme temperatures, electric trauma, poisoning.
5. Procedure of registering the results at the incident scene. Inspection report of the scene. B) for self-study: 1. Technical equipment for the site inspection 2. Create a site plan. Photographing the scene. 3. Description of the appearance of the corpse according to the method of a verbal portrait

### **7. LABORATORY CLASSES**


This type of work does not provide UP

### **8. SUBJECTS OF COURSE PAPERS, TESTS, ESSAYS**

Coursework, examinations - are not provided UP.

#### **Topics of referrals (reports):**


1. Organization and structure of forensic medical service. Aims and objectives of forensic medical examinations
2. The basis order of action and tasks of forensic medical examination of a corpse. Basic normative documents on forensic medical examination. Objectives of forensic medical examinations.
3. Clinical and biological death. Statement of death. Forensic medical classification of death
4. Definition of period since death. Early and late cadaveric changes and their forensic medical importance.
5. Examination of corpses of unknown people. Identification of person .Forensic medial investigation of dismembered and skeletal corpses.
6. Exhumation of corpse. Reasons, organization and collection of material evidence, documentation and importance.
7. Investigation of the corpse at the site of detection. Procedure of recording the investigation at the site of detection.

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8. Characteristics of the inspection at the scene of an incident in the presence of a fetus or a newborn. Legal and forensic aspects of examination of corpses of fetuses and newborns.
9. General understanding of trauma and traumatization. Types of trauma.
10. Signs of intra-vital and postmortem mechanical injury. Possibility of finding the period since the formation of bruises.
11. Forensic medical examination of a sharp object injury.
12. Forensic medical examination of a blunt object injury.
13. Transport trauma. Investigation at the site of detection in a road traffic accident.
14. Types of sudden death. Common signs of fast-onset death and death from primary respiratory arrest.
15. Gunshot injuries. gunshot injuring factors and mechanisms of action on clothing, tissues and organs. Setting the distance of the shot.
16. Types of firearms. Injury from uncommon weapons.
17. The concept of hypoxia and mechanical asphyxia, the types and signs.
18. Death from the action of high and low temperatures.
19. Atmospheric and electrical injury. Effects of high and low partial gaseous pressure on an organism.
20. Effects of ionizing radiation on an organism. Radiation disease. Special investigation of corpse.
21. Poisoning. Forensic medical classification of poisons. Special investigation of corpse on the scene of detection in a situation of poisoning.
22. Forensic medical examination in a situation of ethanol poisoning. Narcotic poisoning.
23. Examination of survivors, its types. Basics and order of examination.
24. Forensic medical examination. Defining the severity of injury. And its judicial classification.
25. Biological evidence. Order, removal, packaging and sending of material evidence for forensic medical investigation.
26. Forensic medical examination of materials of criminal cases. Order and objectives of the investigation.
27. The criminal liability of medical personnel. Violations in the professional work of medical personnel.


**9. QUESTIONS FOR EXAM/CREDIT ON DISCIPLINE “FORENSIC MEDICINE”**

1. Subject, tasks, system of forensic medicine.
2. Organization and structure of the forensic medical service.
3. The grounds, the procedure of appointment and task forensic examination of the corpse.
4. Differences forensic examination of the corpse of the autopsy.
5. Objects forensics.
6. Basic regulations for forensic examination.
7. Classification of death in forensic medicine.
8. A statement of death. Symptoms rapidly ensuing death.
9. The concept of the clinical and biological death, their symptoms.

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10. Early decomposition: cadaveric spots, rigor cooling.
11. Early decomposition: dry rigor, rigor mortis, autolysis.
12. Late decomposition. Conditions that accelerate or retard their development.
13. General characteristics of the blunt solid objects. Classification of blunt objects on the nature of their traumatic surface. The mechanism of damage blunt hard object.
14. Morphological characteristics and forensic value of abrasions, bruises, wounds, formed by the impact of hard blunt objects.
15. The mechanism of the occurrence and particularly damage if dropped from a height.
16. Especially damage resulting in various types of automobile injuries.
17. Railway injury. Features railway injury (typical and atypical lesions).
18. Forensic characterization of damage caused by a sharp instrument (gun).
19. Firearms: definition, classification. The unit combat and hunting cartridges.
20. firing mechanism. Damaging factors shots.
21. Morphological features of the input and output gunshot wounds caused from various distances at shots from manual military firearms.
22. Types of mechanical asphyxia. Differential diagnosis of strangulation and hanging loop.
23. Asphyxia from closing airway foreign bodies and loose, vomit. Compression asphyxia.
24. Drowning ("true" and "asfiksichesky" types of drowning). Laboratory methods for diagnosing drowning. External and internal signs of death by drowning.
25. Characteristic lesions by topical high and low temperature.
26. The general effect of high temperatures on the human body. Signs in vivo action of the flame.
27. Death from hypothermia, her symptoms.
28. The concepts of "poison" "poison," "dose." Classification of poisonings. Terms of action of poisons on the human body.
29. Poisoning by corrosive poisons.
30. Blood poisoning poisons.
31. Poisoning destructive poisons.
32. Alcohol poisoning and technical liquids.
33. Qualifying features of grievous bodily harm.
34. Qualifying features of medium gravity harm to health.
35. Qualifying signs of bodily harm.
36. Features of forensic examination of corpses of newborn babies. The cause of death. The concept of active and passive infanticide.
37. Establishing a live birth during the examination of the corpse of the newborn. Samples Galena, Breslau, Dillon and their forensic evaluation.
38. Signs of vitality and maturity of the newborn.
39. The definition of "infanticide". Art. Of the Criminal Code. Symptoms of neonatal.
40. Remedial and organizational and methodical aspects external examination of a corpse on the spot of detection (incident).



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41. The concept of physical evidence. The competence of the forensic medical service on research evidence.
42. Search, Seizure and packaging traces of biological origin, are subject to forensic examination.
43. The general idea of the types, methods, and capabilities of laboratory studies and examination of evidence in forensic practice.
44. Forensic medical examination of blood.
45. Forensic medical examination of seminal fluid.
46. Forensic medical examination of saliva.
47. Forensic medical examination of the hair.
48. Forensic medical examination of tissues.
49. Forensic medical examination of sweat.
50. Methods of forensic histological examination.

#### 10. SELF-STUDY WORK OF STUDENTS:

Content requirements, conditions and procedures for the organization of independent work of students, taking into account forms of training are determined in accordance with the "Regulation on the organization of independent work of students," approved by the Scientific Council of ULSU (protocol №8 / 268 from 26.03.2019). For each form of study: full-time / parttime / part-time is filled with a separate table.

##### Full-time form of education

Set-off interview Name of the section / subject essay	Types of SSW	Total number of hours	Current control
Forensic medical examination based on material of investigative and judicial caseselaboration Forensic examination of physical evidence	elaboration of educational material, abstract, problem solving, preparation for taking tests.	12	Set-off interview essay
Forensic medical examination in cases of sudden death	elaboration of educational material, abstract, preparation for taking tests.	12	Set-off interview essay

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## 11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

### Core reading:

1. Forensic Medicine. Textbook / Pigolkin Yu. I. , Dubrovin I. A. - Москва : ГЭОТАРМедиа, 2019. - ISBN 978-5-9704-5138-0. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970451380.html>
2. Clinical pathophysiology : concise lectures, tests, cases : учебное пособие для студентов учреждений высшего образования / П. Ф. Литвицкий, С. В. Пирожков, Е. Б. Тезиков. - 3-е изд. , перераб. и доп. - Москва : ГЭОТАР-Медиа, 2019. - 432 с. - ISBN 978-5-9704-4992-9. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970449929.html>

### Supplementary reading:

1. Шульга А. В. Pathological anatomy. Guidelines for practical classes = Патологическая анатомия. Руководство к практическим занятиям: учебное пособие для иностранных студентов учреждений высшего образования по специальностям «Лечебное дело», «Педиатрия» : textbook for foreign students of higher education institutions in the specialties / А. В. Шульга, М. Г. Зубрицкий. - Гродно : ГрГМУ, 2020. - 324 с. - ISBN 9789855955444. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <https://www.books-up.ru/ru/book/pathological-anatomy-guidelines-for-practical-classes-11961787>
2. Law Science : textbook / N. E. Dobrovolskaya, N. A. Skrebneva, E. Kh. Barinov, P. O. Romodanovsky. - Moscow : GEOTAR-Media, 2021. - 528 с. - ISBN 978-5-9704-5956-0. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970459560.html>


### educational-methodical:

1. Makarov V. M. Methodological instructions for the organization of independent work in the discipline «Forensic medicine» for the specialty 31.05.01 «General medicine» (teaching in English) / V. M. Makarov, K. S. Kolosovskikh; Ulyanovsk State University. - Ulyanovsk : UISU, 2022. - 13 p. - Неопубликованный ресурс; На англ. яз. - URL: <http://lib.ulsu.ru/MegaPro/Download/MObject/11609>. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

### AGREED:

*И.И. Бибикова* *С.И. Стаденикова* | *Стаж*  
 Position of scientific library employee      full name      signature      date

16.04.24

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## Professional databases, information and reference systems:

### 1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2024]. – URL: <http://www.iprbookshop.ru>. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2024]. - URL: <https://urait.ru> . – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2024]. – URL: <https://www.studentlibrary.ru/cgi-bin/mb4x>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2024]. – URL: <https://www.rosmedlib.ru>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2024]. – URL: <https://www.books-up.ru/ru/library/> . – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2024]. – URL: <https://e.lanbook.com>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2024]. - URL: <http://znanium.com> . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

**2. КонсультантПлюс** [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2024].

**3. eLIBRARY.RU**: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2024]. – URL: <http://elibrary.ru>. – Режим доступа : для авториз. пользователей. – Текст : электронный

**4. Федеральная государственная информационная система «Национальная электронная библиотека»** : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2024]. – URL: <https://нэб.рф>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

**5. Российское образование** : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: <http://www.edu.ru>. – Текст : электронный.


**6. Электронная библиотечная система УлГУ** : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: <http://lib.ulsu.ru/MegaPro/Web>. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Инженер ведущий



Щуренко Ю.В.

2024

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## 12. EDUCATIONAL AND METHODOLOGICAL AND INFORMATION SUPPORT OF DISCIPLINE

The discipline "Forensic medicine" is studied by students of the Ulyanovsk regional bureau of forensic medical examination.

The list of specialized auditoriums and study rooms: two study rooms, 1 extra study room. study Hall. Educational and laboratory equipment:

1. Dissection table and examination tools
2. illustrative tables and figures (52)
3. mock-ups
4. macro preparations wet and dry
5. cabinet with a set of necessary utensils
6. table with different instructions
7. stereomicroscope
8. slide projector, slides (350)
9. training stands
10. educational layouts

## 13. SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES


If necessary, students from the number of persons with disabilities (at the request of the student) can offer some of the following information perception options tailored to their individual psycho-physical features:

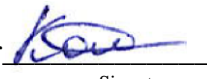
for persons with visual impairments: in printed form in large print; in the form of an electronic document; in the form of an audio file (translation of educational materials in audio format); in printed form in Braille; individual consultations involving tiflosurdoperevodchika; individual tasks and advice;

for persons with hearing impairments: in printed form; in the form of an electronic document; videos with subtitles; individual counseling with the involvement of a sign language interpreter; individual tasks and advice;

for people with disorders of the musculoskeletal system: in printed form; in the form of an electronic document; in the form of an audio file; individual tasks and advice.

If it is necessary to use partly distance educational technologies in the educational process, the organization of work with students with disabilities and disabled people is provided in the electronic information and educational environment, taking into account their individual psychophysical characteristics.

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Signature Position Full name

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