



MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION  
Federal State Autonomous Educational Institution  
of higher education  
**"Far Eastern Federal University"**  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

" AGREED BY"

«General medicine» educational program  
Supervising person

Yu.S. Khotimchenko

" APPROVED BY"

Clinical Medicine  
Department Director

B.I. Geltser



« 14 » of January 2021

« 14 » of January 2021

**WORKING PROGRAM OF ACADEMIC DISCIPLINE (WPAD)**

**Forensic Medicine**

**Specialty 31.05.01 General Medicine**

**Form of study: fulltime**

year 6, semesters 11  
lectures 18 hours.  
practical classes 36 hours.  
laboratory works are not provided  
total amount of in-class lessons 108 hours  
independent self-work 54 hours  
including preparation to exam is not provided  
control works (quantity) are not provided  
course work / course project not provided  
pass-fail exam year 6, 11 semester  
exam is not provided

The working program was drawn up in accordance with the requirements of the federal state educational standard of higher education 31.05.01 in the direction of training "General Medicine" (level of training specialist), approved by order of the Ministry of Science and Higher Education of the Russian Federation dated August 12, 2020 No. 988 and the Educational Plan in the direction of training "General Medicine".

The working program of the discipline was discussed at the meeting of the Department of the clinical medicine. Protocol No.5, January 14, 2021.

Director of the Department: MD, Professor, B.I. Geltser

Prepared by: PhD in Medicine A.V. Golubeva

Vladivostok

2021

**Reverse side of the title page of the WPAD**

**I. The work program was revised at the meeting of the Department:**

Protocol dated "\_\_\_\_\_" \_\_\_\_\_ 20\_\_ No. \_\_\_\_\_

Department Director \_\_\_\_\_  
(signature) (Full Name)

**II. The work program was revised at the meeting of the Department:**

Protocol dated "\_\_\_\_\_" \_\_\_\_\_ 20\_\_ No. \_\_\_\_\_

Department Director \_\_\_\_\_  
(signature) (Full Name)

**III. The work program was revised at the meeting of the Department:**

Protocol dated "\_\_\_\_\_" \_\_\_\_\_ 20\_\_ No. \_\_\_\_\_

Department Director \_\_\_\_\_  
(signature) (Full Name)

**IV. The work program was revised at the meeting of the Department:**

Protocol dated "\_\_\_\_\_" \_\_\_\_\_ 20\_\_ No. \_\_\_\_\_

Department Director \_\_\_\_\_  
(signature) (Full Name)

## Goals and objectives of mastering the discipline:

**Goals:** to form students' knowledge of the theoretical and practical issues of forensic medicine in the amount necessary for the successful fulfillment of the duties of a specialist.

### Objectives:

- to acquaint students with the legal regulation and organization of forensic medical examination, the responsibility of a doctor for causing harm to health in the process of providing medical care and committing professional and professional offenses;
- to acquaint students with the morphological features of the course of pathological processes under various types of external influences and extreme conditions.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (result of development)	Code and name of the indicator of achievement of competence
medical	PC-11 Ready to conduct an examination of temporary disability, participate in a medical and social examination, ascertain the biological death of a person	PC-11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
PC -11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death	Knows the legal regulation of the production of a forensic medical examination, the rights, duties and responsibilities of an expert, signs of biological death
	Able to determine the main pathological conditions, symptoms, syndromes of the disease in patients, ascertain the biological death of a person.
	Skilled: - the skill of describing injuries, resolving the issue of their in vivo (posthumous) formation, prescription, sequence and mechanisms of infliction; - The ability to properly maintain medical records.

## 2. The complexity of the discipline and types of training sessions in the discipline

The total labor intensity of the discipline is 3 credit units (72 academic hours).  
(1 credit unit corresponds to 36 academic hours)

The types of training sessions and work of the student in the discipline can be:

Name	Types of training sessions and work of the student
Lec	Lectures
Pract	Practical classes
Online	On-line tests
SP	Independent work of the student during the period of theoretical training
Control	Independent work of the student and contact work of the student with the teacher during the period of intermediate certification

### Discipline structure:

Full-time form of education.

N o.	Section name disciplines	Semester	The number of hours by type of training sessions and work of the student					SR	Control	Forms of intermediate certification, current monitoring of progress
			Lec	Lab	Etc	OK				
1	Procedural and organizational foundations of forensic medical examination	C	2	-	4	4	27	5	OQ-1; WW-2; WW-4; WW-7; WW-14	
2	Forensic thanatology, examination of a corpse at the site of discovery	C	2	-	4	4		5		
3	Forensic Traumatology	C	6	-	12	12		4		
4	Asphyxia	C	2	-	4	4		4		
5	Injury and death from exposure to physical and chemical agents	C	4	-	8	8		4		
6	Forensic medical examination in cases of holding medical workers liable for poor-quality medical care and professional offenses	C	2	-	4	4		5		
Total:			18	-	36	36	27	27		

## I. STRUCTURE AND CONTENT OF THE THEORETICAL PART OF THE COURSE

## **Lectures (18 hours)**

### **Module I. \_ Procedural and organizational foundations of forensic medical examination (2 hours)**

#### **Topic 1. The structure of the forensic service of the Russian Federation, objects of research (2 hours)**

The concept of expertise and its role in criminal and civil proceedings. Forensic-medical examination. The structure of the forensic service in the Russian Federation. Law "On State Forensic Activities". Specialist doctor and forensic doctor. Their rights, duties and responsibilities, limits of competence. Objects of forensic medical examination, the procedure for its appointment and production. Reasons for the mandatory appointment of a forensic medical examination, its types. Documenting the production of a forensic medical examination. Participation of the investigator and other persons in the production of a forensic medical examination. Interrogation of an expert. Appointment of additional studies and examinations; repeated, based on the materials of the case, commission and comprehensive examinations. Expertise in court. Organizational and procedural forms of the investigative and judicial experiment, the participation of a forensic medical expert in them.

### **Module II .Forensic thanatology, examination of a corpse at the site of discovery (2 hours) .**

#### **Topic 2. Examination of the corpse at the place of its discovery (2 hours).**

The concept of forensic thanatology. Dying and death; their general biological, medical and legal assessment. The concept of thanatogenesis. Options for the transition from life to death (terminal states, agony, clinical and biological death). Morphological signs of the rate of death. Statement of death and its medical and legal classification (category, genus, type). Early and late changes in the corpse, their diagnosis and significance. Influence of environmental factors on the timing of their development. Thanatogenetic assessment of the organs experiencing the moment of cardiac arrest. The concept of resuscitation and transplantation. Medical and legal aspects of human organ and tissue transplantation. Artificial preservation of corpses. Destruction of corpses by animals, insects, plants. Determining the statute of limitations for death by expert means.

### **Module III .Forensic traumatology (6 hours).**

**Topic 3. Forensic traumatology. Forensic medical examination of injuries caused by blunt solid objects (2 hours).**

The concept of trauma and traumatism, its causes and prevention. Medical and medico-legal classification of injuries. Environmental factors leading to the formation of damage. The concept of weapons, tools and damaging objects. Classification of blunt solid objects. Mechanisms of causing damage. Characteristics and structure of transport injury, its types.

**Topic 4. Transport injury and fall from a height. Forensic medical examination of injuries with sharp tools (2 hours).**

Automobile injury, its classification, mechanisms and phases of damage formation in relation to each of its types. Morphological characteristics of the damage caused. The concept of specific and characteristic damage for each type of car injury. Railway injury, its types. The mechanism of damage formation and their characteristics.

**Topic 5. Forensic medical examination of gunshot injuries and explosive injuries (2 hours).**

General concept of firearms, their classification and ammunition. The mechanism of the shot and the phenomena accompanying it, damaging the factors of the shot. Mechanism and formation of gunshot injury. Morphological signs of entry and exit gunshot wounds. Blind, penetrating, tangential wounds. wound channel. The concept of shot distance. Characteristics of wounds when shot at close range, within and outside the limits of the action of the accompanying components of the shot, the Vinogradov phenomenon. Damage caused by shot, their feature depending on the distance of the shot. Damage when shot through an obstacle. Forensic medical examination of multiple gunshot injuries, establishing the sequence of their occurrence. Explosive trauma and its morphological features. Laboratory methods used in the production of an examination of a gunshot injury, the nature of the issues to be resolved. Characteristics of the damage caused by a shot from a gas weapon.

**Module IV .Asphyxia (2 hours).**

**Topic 6. Mechanical asphyxia (2 hours)**

The concept of hypoxia and mechanical asphyxia, their pathophysiological basis and types. Signs of rapid onset (hypoxic) death. Strangulation asphyxia and its types (hanging, strangulation with a loop, strangulation with hands). Medico-forensic assessment of the loop and strangulation furrow. Establishment of intravital compression of the neck. Asphyxia due to compression of the chest and abdomen, closing the nose and mouth with soft objects, obstruction of the respiratory tract by foreign bodies, aspiration of vomit or loose substances. Hypoxia in a closed confined

space. Thanatogenesis and morphological changes in various types of mechanical asphyxia, their forensic medical evaluation. The value of laboratory methods in the diagnosis of asphyxia.

Drowning and types of its thanatogenesis. Establishing the duration of the stay of the corpse in the water. Assessment of damage on a corpse removed from the water (mechanism of occurrence, lifetime of formation, connection with the onset of death). Sudden death and death from hypothermia in water.

## **Module V. \_ Injury and death from exposure to physical and chemical factors (4 hours).**

### **Topic 7. Injury and death from exposure to physical factors (2 hours).**

General and local effect on the body of high temperature. Causes of death and timing of its onset. Morphological evidence of heat exposure. General overheating of the body and sunstroke. Burns and burn disease. Damage from flames and hot liquids, hot gases and objects. Establishment of the lifetime action of the flame.

General and local effects on the body of low temperature. Conditions conducive to the onset of death from general hypothermia of the body. Diagnosis of this type of death in the study of the corpse. Glaciation of the corpse and features of its study. Frostbite and their forensic evaluation.

General information about health disorders and death due to changes in atmospheric pressure. Pathogenesis and morphological manifestations of barotrauma, altitude sickness, decompression sickness and hyperbaria and their forensic medical evaluation.

Electrical injury. Mechanisms of the impact of technical and atmospheric electricity on the body. Pathophysiology and thanatogenesis, morphological manifestations and conditions that contribute to the defeat of electricity. Expert evidence of death from electric shock.

General information about the damaging effect of radiant energy and the options for its impact on humans. Forensic medical diagnosis of injuries and death due to radiation injury.

### **Topic 8. Forensic medical examination of poisoning (2 hours).**

The concept of "poison" and "poisoning". Conditions for the action of poisons. Origin of poisonings, variants of their course and outcome. Principles of forensic medical diagnosis of poisoning. Investigation of the corpse and seizure of material evidence in case of suspected poisoning. Preservation of poisons in the corpse, its parts and physical evidence. Interpretation of the results of forensic chemical research. Application for suspected poisoning of spectral, bacteriological and other types of laboratory studies. Patho - and thanatogenesis, manifestations, causes of death, laboratory tests and expert diagnostics in case of poisoning by

certain groups of poisons: caustic, destructive, hemotropic and functional poisons. Food poisoning, poisoning by poisonous plants and animal tissues, pesticides. Forensic medical examination of fatal and non-fatal poisoning with ethyl alcohol and its surrogates. Alcohol intoxication and alcohol intoxication. pathological intoxication. Establishing the fact and degree of alcohol intoxication. The concept of drug addiction and substance abuse. Forensic medical examination of fatal and non-fatal drug poisoning.

**Module VI .Forensic medical examination in cases of bringing medical workers to responsibility for poor-quality medical care and professional offenses (2 hours).**

**Topic 9. Forensic medical examination in cases of bringing medical workers to responsibility for poor-quality medical care and professional offenses (2 hours).**

Reasons, procedure for organizing and conducting a forensic medical examination in cases of holding medical workers liable for poor-quality diagnostics, treatment and rehabilitation of a patient, the commission of professional or professional offenses. The concept of medical error and accident, an emergency in medical practice. Legal regulation of human organ and tissue transplantation. Medico-legal assessment of euthanasia. The importance of forensic medical examination materials for the analysis and prevention of violations in the work of medical institutions and improving the quality of medical and social assistance to the population.

## **II. STRUCTURE AND CONTENT OF THE PRACTICAL PART OF THE COURSE AND INDEPENDENT WORK**

**Practical lessons (36 hours)**  
*Including using ALM- 36 hours*

**Lesson 1. The structure of the forensic medical service of the Russian Federation, objects of research. (4 hours)**

*ALM– Press conference (4 hours)*



1. Procedural and organizational bases of forensic medical examination. The content of the subject of forensic medicine.
2. The structure of the forensic medical service of Russia, the objects of research. Rights and obligations of an expert. Types of expertise.
3. Reasons and procedure for appointment of expertise. Requirements for the execution of forensic medical documentation.
4. Rules for filling out a medical certificate of death.

## **Lesson 2. Forensic thanatology, examination of the corpse at the site of discovery(4 hours)**

### ***ALM- Extended conversation (4 hours)***

1. Consideration of issues of regulation and procedure for examining a corpse at the place of its discovery in accordance with the criminal procedure legislation of the Russian Federation.
2. Acquaintance with the tasks of a specialist doctor when examining a corpse, the stages of examination.
3. Familiarization with the techniques for identifying and describing damage to the clothing and body of a corpse, assessing cadaveric phenomena, conducting.
4. Acquaintance with the rules for the detection, seizure and direction of material evidence of biological origin.

## **Lesson 3. Forensic traumatology. Forensic medical examination of injuries caused by blunt solid objects(4 hours)**

### ***ALM- Debate (4 hours)***

1. The concept of trauma and traumatism, its causes and prevention.
2. Medical and medico-legal classification of injuries.
3. Environmental factors leading to the formation of damage.
4. The concept of weapons, tools and damaging objects.
5. Classification of blunt solid objects. Mechanisms of causing damage.

## **Topic 4. Transport injury and fall from a height. Forensic medical examination of injuries with sharp tools(4 hours)**

### ***ALM- Press conference (4 hours)***

1. Familiarization of students with the types of injuries that occur when falling from a great height and on a plane.
2. Examination of damages from the action of rail, trackless and water transport.

**Topic 5. Forensic medical examination of gunshot injuries and explosive injuries(4 hours)**

***ALM- Debate (4 hours)***

1. Classification of firearms, explosives,
2. Differential diagnostic signs of wounds,
3. Features of the production of expertise.

**Topic 6. Mechanical asphyxia(4 hours)**

***ALM- Extended conversation (4 hours)***

1. Familiarization of students with the diagnosis of death from asphyxia, the stages of the course of asphyxia and its consequences.
2. Differential diagnosis of intravital strangulation furrow.
3. Features of the production of forensic medical examinations for various types of mechanical asphyxia.

**Topic 7. Injury and death from exposure to physical factors. (4 hours)**

***ALM- Press conference (4 hours)***

1. General and local action of high and low temperature;
2. examination of corpses found in the fire and in cases of death in the cold.
3. Electrical injury.

**Topic 8. Forensic medical examination of poisonings(4 hours)**

***ALM- Extended conversation (4 hours)***

1. Familiarization of students with various types of poisoning, food poisoning, potent and narcotic drugs.
2. Patho - and thanatogenesis, manifestations and causes of death in case of poisoning by certain groups of poisons. Establishing the fact of alcohol consumption and the degree of intoxication.
3. Drug addiction and substance abuse.
4. The role of laboratory research in the diagnosis of death from poisoning.

**Topic 9. Forensic medical examination in cases of holding medical workers liable for poor quality medical care and professional offenses(4 hours)**

***ALM- Extended conversation (4 hours)***

1. Familiarization of students with medical deontology, responsibility for professional and professional offenses of medical workers in accordance with the Criminal Code of the Russian Federation,
2. Fundamentals of the legislation of the Russian Federation on the protection of the health of citizens, features of the commission forensic medical examinations.

### III. EDUCATIONAL AND METHODOLOGICAL PROVISION OF STUDENTS' INDEPENDENT WORK

#### Schedule for the implementation of independent work on the discipline

No. p / p	Types of independent work	Approximate performance standards	form of control
1	Laboratory research methods in forensic medicine	4.5 hours.	WW-7 (abstracting)
2.	Examination of corpses of fetuses and newborns	4.5 hours.	WW-7 (abstracting)
3	Examination of the scene of the incident and the corpse at the place of its discovery	4.5 hours.	WW-7 (abstracting)
4.	Forensic thanatology	4.5 hours.	WW-7 (abstracting)
5	Working with electronic educational resources	4.5 hours.	WW-4 (ref.paper)
6	Working with literary and other sources of information on the section under study	4.5 hours.	WW-4 (ref.paper)
7	Exam preparation	27 hours.	exam
Total:		54 hours	

#### Guidelines for maintenance, submission requirements, and criteria for evaluating abstracts

A Ref.paper (from Latin conspectus - review) is a written text that briefly and consistently outlines the content of the main source of information.

To abstracting means to bring to some order the information drawn from the original. The process is based on the systematization of what is read or heard. Recordings can be made both in the form of exact excerpts, quotations, and in the form of a free presentation of meaning. The style of writing an abstract, as a rule, is close to the style of the original source. If the abstract is drawn up correctly, it should reflect the logic and semantic connection of the recorded information.

In well-written notes, you can easily find specialized terminology, clearly explained and clearly distinguished for remembering the meanings of various words. Using outlined information, it is easier to create meaningful creative or scientific work, various abstracts and articles.

#### Abstracting rules

1. Read the text carefully. Along the way, mark incomprehensible places, new words, names, dates.
2. Make inquiries about the persons, events mentioned in the text. When recording, do not forget to put reference data in the fields.

3. When reading the text for the first time, make a simple plan. When re-reading, try to briefly formulate the main provisions of the text, noting the author's argument.

4. The final stage of note-taking consists of re-reading previously noted passages and briefly writing them down in sequence.

5. When taking notes, you should try to express the author's thought in your own words.

6. Strive to ensure that one paragraph of the author's text is transmitted when taking notes in one, maximum two sentences.

**When taking notes of lectures (abstracting), it is recommended to adhere to the following basic rules.**

1. Do not start writing down the material from the first words of the teacher, first listen to his thought to the end and try to understand it.

2. Start recording at the moment when the teacher, finishing the presentation of one thought, begins to comment on it.

3. Separate parts must be highlighted in the abstract . It is necessary to distinguish between headings, subheadings, conclusions, to isolate one topic from another. Highlighting can be done with an underline, a different color (just do not turn the text into colorful pictures). It is recommended to indent to indicate paragraphs and points of the plan, space lines to separate one thought from another, numbering. If definitions, formulas, rules, laws in the text can be made more visible, they are framed. Over time, you will have your own selection system.

4. Create your entries using accepted conventions. When taking notes, be sure to use a variety of signs (they are called signal). These can be pointers and directing arrows, exclamation and question marks, PS (afterword) and NB (pay attention) combinations. For example, the word "hence" you can denote the mathematical arrow  $\Rightarrow$ . When you develop your own icon set, it will be easier and faster to create an outline, and then study it.

5. Don't forget about abbreviations (abbreviated words), equal and inequality signs, more and less.

6. Abbreviations are of great use for creating the correct outline. However, be careful. Connoisseurs believe that abbreviations such as "d- dt "(think) and the like should not be used, since subsequently a large amount of time is spent on decoding, and after all, reading the abstract should not be interrupted by extraneous actions and reflections. It is best to develop your own system of abbreviations and use them in all entries for the same words (and nothing else). For example, the abbreviation " gt " will always and everywhere be the word "speak", and the capital letter "P" will be the word "work".

7. Undoubtedly, foreign words will help organize a good summary. The most used among them are English. For example, the abbreviated "ok" successfully denotes the words "excellent", "wonderful", "good".

8. Complex and lengthy arguments should be avoided.

9. When taking notes, it is better to use declarative sentences, to avoid independent questions. Questions are appropriate in the margins of the abstract.

10. Do not try to fix the material verbatim, in this case the main idea is often lost, moreover, such a record is difficult to keep. Discard secondary words, without which the main idea is not lost.

11. If there are terms incomprehensible to you in the lecture, leave a place, after class check their meaning with the teacher.

### **Criteria for evaluation:**

86-100 points are given to the student if the abstract is presented in the most understandable form, has a plan, diagrams and drawings in the structure, reveals all the basic concepts and questions given above;

76-85 points are given to the student if the abstract is presented in a fairly understandable form, has diagrams and / or drawings in the structure, reveals more than half of the basic concepts and questions;

75-61 points are given to the student if the abstract is presented in a relatively understandable form and reveals half of the main concepts and questions;

60-50 points are given to the student if the abstract is presented in an incomprehensible form and reveals less than half of the main concepts and questions.

### **Rules for writing an abstract work:**

Abstracting educational and scientific literature involves an in-depth study of individual scientific works, which should ensure the development of the necessary skills to work on a book. All this will contribute to the expansion of scientific horizons, increase their theoretical training, and the formation of scientific competence.

Textbooks, individual monographic studies and articles on issues provided for by the program of the academic discipline are offered for abstracting. When selecting literature on the chosen issue, it is necessary to cover the most important directions in the development of this science at the present stage. Pay special attention to those literary sources that (directly or indirectly) can assist a specialist in his practical activities. However, this section also includes works and individual studies on issues that go beyond the discipline under study. This literature is recommended to use if you want to expand your knowledge in any branch of science.

Along with literature on general issues, students are supposed to read literature, taking into account the profile of their professional activity, obtained

independently. Not all of the proposed literature is equivalent in content and volume, so a different approach to its study is possible. In one case, this may be a general abstracting of several literary sources by various authors devoted to the consideration of the same issue, in the other case, a detailed study and abstracting of one of the recommended works or even its individual sections, depending on the degree of complexity of the issue (problematics). In order to decide what to do in each case, you should consult with the teacher.

The choice of a specific work for abstracting should be preceded by a detailed acquaintance with the list of all literature given in the curriculum of the discipline. It is recommended that you first familiarize yourself with the selected work by viewing subtitles, highlighted texts, diagrams, tables, and general conclusions. Then it must be read carefully and thoughtfully (delving into the ideas and methods of the author), making notes along the way on a separate sheet of paper about the main provisions, key issues. After reading, you should think over the content of the article or a separate chapter, paragraph (if we are talking about a monograph) and briefly write it down. Literally, only strict definitions, formulations of laws should be written out. Sometimes it is helpful to include one or two examples in the entry to illustrate. In the event that there are incomprehensible places, it is recommended to read the subsequent presentation, as it can help to understand the previous material, and then return to the understanding of the previous presentation.

The result of work on literary sources is an abstract.

When preparing an abstract, it is necessary to highlight the most important theoretical provisions and substantiate them independently, paying attention not only to the result, but also to the methodology used in studying the problem. Reading scientific literature should be critical. Therefore, one should strive not only to assimilate the main content, but also the method of proof, to reveal the features of different points of view on the same issue, to evaluate the practical and theoretical significance of the results of the reviewed work. A highly desirable element of the abstract is the listener's expression of his own attitude to the ideas and conclusions of the author, supported by certain arguments (personal experience, statements of other researchers, etc.).

Abstracts of monographs, journal articles of a research nature must certainly contain, as already mentioned above, the definition of the problem and specific research objectives, a description of the methods used by the author, as well as the conclusions that he came to as a result of the study. The proposed literature for referencing is constantly updated.

Guidelines for writing abstracts:

General requirements for the abstract:

The abstract should be written according to the standard scheme, including:

- title page;
- table of contents;
- introduction;
- the main part;
- conclusion;
- Bibliography.

It is desirable to include tables and (or) figures in the text of the abstract: diagrams, graphs. The volume of the abstract: 10-20 pages of A4 format computer layout in the Times editor New Roman , 1.5 spacing, 14 font. The title of the abstract topic must fully correspond to the selected option.

The structure of the abstract must comply with the standard requirements for writing abstracts: introduction, justification for the choice of topic, presentation of the topic, conclusion. More detailed requirements for the written presentation of the abstract are presented in the Procedure "Requirements for the preparation of written work performed by students and listeners of FEFU" [http://law.wl.dvgu.ru/docs/treb\\_2012.pdf](http://law.wl.dvgu.ru/docs/treb_2012.pdf)

#### **Sample list of topics for ref.papers:**

1. Personal identification methods in forensic medicine
2. Forensic examination of blast injury
3. Forensic Medical Examination of Aviation Trauma
4. Forensic medical examination of a railway injury
5. Forensic medical examination of a motorcycle injury
6. Forensic medical examination of electrical injury
7. Forensic examination of barotrauma
8. Forensic Medical Examination of Radiation Injury
9. Forensic medical examination of alcohol poisoning
10. Forensic medical examination of poisoning by alcohol surrogates
11. Forensic medical examination of drug poisoning
12. Forensic medical examination of FOS poisoning
13. Forensic medical examination of carbon monoxide poisoning
14. Forensic medical examination of carbon dioxide poisoning
15. Forensic medical examination of nicotine poisoning
16. Forensic Medical Examination in Cases of Medical Workers

#### **Criteria for evaluation:**

"Excellent" (90-100 points) - the report fully reveals the topic, the student answers all additional questions, tells; speaks without looking at the text.

"Good" (80-89 points) - the report covers the topic, but requires additions, the student answers all additional questions; speaks, relying on the text, but not reading it.

"Satisfactory" (70-79 points) - the report covers the topic, but requires additions, the student cannot answer most of the additional questions, partially reads out the text during the story.

"Unsatisfactory" (0-69 points) - the report does not cover the topic, the student cannot answer most of the additional questions, reads the text.

#### IV. CONTROL THE ACHIEVEMENT OF COURSE GOALS

No. p / p	Controlled sections / topics of the discipline	Codes and stages of formation of competencies		Evaluation tools	
				current control	intermediate certification
1	<b>Module I.</b> _ Procedural and organizational foundations of forensic medical examination <b>Module II</b> <b>.Forensic</b> thanatology, examination of a corpse at the site of discovery <b>Module III</b> <b>.Forensic</b> Traumatology <b>Module IV</b> <b>.Asphyxia</b> <b>ModuleV.</b> _ Injury and death from exposure to physical and chemical factors <b>ModuleVI</b> <b>.Forensic</b> medical examination in cases of bringing medical workers to responsibility	PC-11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death	knows	OQ-1 Interview / oral questioning WW-1 Test WW-4 Abstract	Exam Question 1-72
			Able to	WW-14 Case	Exam Question 1-72
			Skilled	WW-2 Test	Exam Question 1-72

Typical control tasks, methodological materials that determine the procedures for assessing knowledge, skills and (or) work experience, as well as qualitative assessment criteria that describe the level of competency formation are presented in section VIII .



## V. LIST OF EDUCATIONAL LITERATURE AND INFORMATION AND METHODOLOGICAL SUPPORT OF THE DISCIPLINE

### Primary

1. Levin, D. G. Forensic medicine: textbook / D. G. Levin. - 2nd ed. - Saratov: Scientific book, 2019. - 159 p. - ISBN 978-5-9758-1783-9. - Text: electronic // Electronic library system IPR BOOKS: [website]. — URL: <https://www.iprbookshop.ru/81054.html>

2. Popov, VL Methodological foundations of forensic medicine / VL Popov. - 2nd ed. - St. Petersburg: Legal Center Press, 2020. - 360 p. - ISBN 978-5-94201-804-7. — Text: electronic // Electronic library system IPR BOOKS: [website]. — URL: <https://www.iprbookshop.ru/108270.html>

3. Forensic medicine: a textbook for medical schools / V. L. Popov, A. V. Kovalev, O. D. Yagmurov, I. A. Tolmachev. - 2nd ed. - St. Petersburg: Legal Center Press, 2021. - 464 p. - ISBN 978-5-94201-785-9. - Text: electronic // Electronic library system IPR BOOKS: [website]. — URL: <https://www.iprbookshop.ru/108272.html>

### Additional

1. Situational tasks and test tasks in forensic medicine [Electronic resource]: textbook. allowance / Ed. ON. Romodanovsky, E.Kh. Barinova - M.: GEOTAR-Media, 2015. Access mode: <http://www.studmedlib.ru/book/ISBN9785970432617.html>

2. Forensic medicine [Electronic resource]: textbook / ed. Yu. I. Pigolkin . - 3rd ed., revised .and additional - M.: GEOTAR-Media, 2015. Access mode: <http://www.studmedlib.ru/book/ISBN9785970433409.html>

3. Forensic medicine in diagrams and drawings [Electronic resource]: textbook. allowance / P. O. Romodanovsky, E. Kh. Barinov - M.: GEOTAR-Media, 2015. Access mode: <http://www.studmedlib.ru/book/ISBN9785970433508.html>

4. Forensic Medicine. Lectures [Electronic resource ]: textbook / Yu.I. Pigolkin , I.A. Dubrovin, I.A. Dubrovina, E.N. Leonova - M. : GEOTAR-Media, 2015. Access mode: <http://www.studmedlib.ru/book/01-COS-2182.html>

5. Forensic Medicine. Guide to practical exercises [Electronic resource ]: textbook. allowance / P. O. Romodanovsky, E. Kh. Barinov, V. A. Spiridonov. - 2nd ed., revised .and additional - M. : GEOTAR-Media, 2015. Access mode: <http://www.studmedlib.ru/book/ISBN9785970432624.html>

## **List of resources of the information and telecommunications network**

### **"Internet"**

1. <http://www.consultant.ru/> Consultant Plus
2. <http://www.garant.ru/> Garant
3. Catalog NB FEFU
4. Articles ( Nature - NPG)
5. EBS Lan
6. EBS IPRbooks
7. EBS Znanium
8. EBS BOOK.ru
9. EBS Student Consultant "GEOTAR"
10. EBS Yurayt
11. EBS Rukont

## **VI. METHODOLOGICAL INSTRUCTIONS FOR MASTERING THE DISCIPLINE**

### **Topic 1. The structure of the forensic service of the Russian Federation, objects of research.**

1. Procedural and organizational bases of forensic medical examination. The content of the subject of forensic medicine.

2. The structure of the forensic medical service of Russia, the objects of research. Rights and obligations of an expert. Types of expertise.

3. Reasons and procedure for appointment of expertise. Requirements for the execution of forensic medical documentation.

4. Rules for filling out a medical certificate of death.

**Methodical instructions.** This topic is introductory. When studying it, it is necessary to understand the importance of forensic medicine for law enforcement officers. Forensic medicine studies and develops various problems of biology and natural science in relation to the requirements of legal and medical sciences, justice and legality. Forensic medicine is an independent branch of medicine, representing a set of knowledge and special research methods used to solve biomedical issues that arise in the activities of law enforcement agencies, as well as specific healthcare tasks. The range of resolved issues and scientific interests connects forensic medicine with various branches of medicine, as well as with criminology, civil, criminal law and procedure, chemistry, biology, and other sciences. However, forensic medicine is not a simple collection of various medical disciplines applied for the purposes of justice. Forensic medicine is an independent medical science that has its own research methods and studies a certain range of issues.

Students should represent the main tasks solved by forensic medicine, its importance in the detection, investigation and prevention of crimes, know the correctness of posing questions to a forensic expert.

Students should become familiar with the history of forensic medicine, its structure, objects and methods of forensic medical research, and the challenges facing this science.

Students need to understand the organization of forensic activities in Russia. Forensic medical examination in Russia is under the jurisdiction of the Ministry of Health and Medical Industry (with the exception of the forensic medical examination of the Russian army.) The procedure for the work of forensic medical institutions is regulated by departmental instructions and regulations, which are created on the basis of the current norms of the law and taking into account previous experience work.

The management of the forensic medical service is carried out by the Chief Forensic Medical Expert. He heads the Republican Center for Forensic Medical Examination. The Center consists of two main structural divisions:

- 1) Bureau of Forensic Medical Examination;
- 2) Research Institute of Forensic Medicine.

At the level of the constituent entities of the Russian Federation (regions, territories, republics), there are Bureaus of Forensic Medical Examination, which are organizational and methodologically subordinate to the Republican Center for Forensic Medicine, and administratively and economically are subordinate to the

health authorities in the constituent entities of the Federation. Bureaus of forensic medical examination are also organized in cities where a large amount of work is carried out. At the level of districts and cities, there are district, inter-district, city branches of the Bureau of Forensic Medical Examination, as well as individual forensic experts. The Bureau of Forensic Medical Examination (at the level of the subject of the federation - region, territory, republic) has a typical structure. The Bureau is headed by a regional (regional, republican) forensic medical expert.

**List of questions for self-control of knowledge.**

1. Subject, system and tasks of forensic medicine
2. Methods and objects of forensic medical research.
3. Organization of forensic activities in Russia.

**Topic 2. Forensic thanatology, examination of a corpse at the site of discovery .**

1. Consideration of issues of regulation and procedure for examining a corpse at the place of its discovery in accordance with the criminal procedure legislation of the Russian Federation.

2. Acquaintance with the tasks of a specialist doctor when examining a corpse, the stages of examination.

3. Familiarization with the techniques for identifying and describing damage to the clothing and body of a corpse, assessing cadaveric phenomena, conducting.

4. Acquaintance with the rules for the detection, seizure and direction of physical evidence of biological origin.

**Methodical instructions.** This topic is important for the further assimilation of this discipline. Forensic investigative practice knows many examples when the information obtained by forensic experts in assessing death on clinical grounds and in the examination of a corpse makes it possible to determine the cause of death and the duration of its occurrence. Death is an irreversible and natural end of life, which is preceded by a gradual cessation of the functioning of human systems and organs. At the same time, the vital activity of individual organs, tissues, cells is still preserved for a short time, their “fading” occurs unevenly.

After the termination of the main functions of the body, tissues and organs retain the ability to function for some time, using reserve, mainly intracellular, life support mechanisms.

After turning off breathing and blood circulation, the cerebral cortex remains viable for 6-8 minutes, after which irreversible changes occur in it.

Students should know the definition of death, its classification from the point of view of forensic medicine.

Since the onset of clinical death, post-mortem changes in the human body begin to develop, which are caused by the cessation of the body's functions as a biological system. They exist in parallel with ongoing vital processes in individual tissues.

Students need to pay attention to post-mortem processes, the intensity of which, their severity depends on many internal and external factors.

Postmortem processes developing on a corpse can be divided into three large groups according to their biological essence.

1. Early cadaveric phenomena are processes caused by the cessation of the life support processes of organs and tissues: these are cadaveric spots, rigor mortis, cadaveric cooling, cadaveric drying and autolysis .

2. survival phenomena are the responses of dying tissues to external stimuli—electrical, mechanical, and chemical. The more time passes since death, the less these reactions appear.

3. Late cadaveric phenomena - changes in the corpse that occur after the early cadaveric phenomena have completed their development, they include: decay, mummification, skeletonization , fat wax, peat tanning. These processes are closely related to damage to corpses by animals and plants.

Many external and internal factors influence the appearance and development of cadaveric phenomena .

The main internal factors of this plan are: the degree of fatness, age, the presence of serious chronic or acute diseases, the degree of alcoholization of the body, and some others. These processes are significantly influenced by the cause of death and the phenomena accompanying it, such as blood loss, the duration and severity of the atonal period, etc. The nature of clothing matters. External conditions influencing the development of postmortem processes include: ambient temperature, humidity, development of flora and fauna of the environment. The nature and degree of influence of the factors listed above will be presented in the description of specific post-mortem processes.

In the course of studying this topic, students should know how the time of death is determined by various cadaveric phenomena, what changes occur in the human body after death, the dependence of the rate of formation of cadaveric phenomena on various factors of the external and internal environment.

#### **List of questions for self-control.**

1. The concept of death. Dying stages. Death classification.
2. Dead spots, their stages. The value of cadaveric spots for determining the time of death.
3. Rigor mortis. Determining the time of death by rigor mortis. Corpse cooling. Corpse desiccation. Autolysis .
4. The phenomena of tissue survival .

5. Late cadaveric changes. Rotting.
6. Skeletonization and mummification. Zhirovovsk and peat tanning.

**Topic 3. Forensic traumatology. Forensic medical examination of injuries caused by blunt solid objects (4 hours).**

1. The concept of trauma and traumatism, its causes and prevention.
2. Medical and medico-legal classification of injuries.
3. Environmental factors leading to the formation of damage.
4. The concept of weapons, tools and damaging objects.
5. Classification of blunt solid objects. Mechanisms of causing damage.

**Methodical instructions.** This topic gives the concept of damage, types of damage, the mechanism of their formation. Students should pay attention to the importance of this topic for understanding the conditions for the formation of lesions, their significance for forensic research.

In forensic practice, examinations related to the study of injuries in living persons and corpses are quite common. Lawyers are always interested not only in the type of traumatic injury, but also in its mechanism, causes and consequences of injuries, which can confirm the investigative version or, conversely, exclude it, and also makes it possible to determine the duration of the injury, the type of object or any factor that caused the injury. , and finally set the truth.

Therefore, employees of the investigating authorities, the prosecutor's office, the court, the advocacy should know the classification of injuries, their mechanism and characteristic injuries, possible causes of death in injuries and what the expert is guided by when giving a forensic medical expert assessment in case of traumatic injuries.

During the study of this topic, students should know:

1. the concept of a blunt solid object,
2. kinds of blunt hard objects,
3. mechanism of action of a blunt object and conditions for the formation of damage.
4. be able to appoint a forensic medical examination for injuries resulting from the action of the TTP.

**List of questions for self-control.**

1. The concept of damage
2. The mechanism of action of a blunt object and the conditions for the formation of damage.
3. The result of the action of a blunt object on different parts of the body with different parameters of action.
4. Forensic evaluation of injuries caused by blunt objects.

#### **Topic 4. Transport injury and fall from a height. Forensic medical examination of injuries with sharp tools.**

1. Familiarization of students with the types of injuries that occur when falling from a great height and on a plane.

2. Examination of damages from the action of rail, trackless and water transport.

**Methodical instructions.** In forensic practice, it is quite often necessary to investigate the traumatic consequences of lethal and non-lethal effects on a person of various types of vehicles. Such injuries are classified as blunt trauma, but they have significant characteristic features, therefore they are considered separately from other types of blunt trauma. Future lawyers need to know the forensic possibilities for resolving issues that arise during the investigation of traffic accidents.

Mechanical damage that occurs when exposed to external and internal parts of the vehicle during its movement and when falling from a moving vehicle is referred to as a *transport injury*.

For a successful investigation of a transport accident, it is necessary to conduct an inspection of the scene of the accident in a timely and qualified manner with the participation of specialists in the field of forensic medicine, a forensic specialist and an engineer of road and rail transport. The results of the examination themselves can be decisive for establishing individual details of the incident.

Among transport injuries, a special place is occupied by an automobile injury. Students should know the concept of a car injury, its types, the features of damage received from various types of car injury. A variety of mechanisms at individual stages of a car injury entails the formation of many injuries that are not the same in nature and localization. Damage from a car injury is divided into three groups: specific (reflecting the shape, pattern, sometimes the dimensions of parts and parts of a particular car), characteristic (characteristic mechanogenesis is reflected, corresponding to the phases of a certain type of injury, for example, a bumper fracture) and uncharacteristic.

In addition to car injuries, there are injuries in water transport, railway injuries, and injuries in air transport. The trainees should distinguish between the types of these injuries and the features of the injuries.

Injuries resulting from a person falling from a height are, in fact, one of the options for causing multiple combined injuries by the action of hard blunt objects.

Injury from a fall from a height is a process of successive impact on the human body of objects that are on the way of falling and at the place of landing. The

scale of damage to organs and tissues is determined by the height of the fall, the mass and position of the body, the property of the landing surface at the moment of impact, etc.

During the study of this topic, students should know:

1. The concept of transport injury.
2. Types and conditions of damage formation in case of transport injury.
3. Be able to appoint a forensic medical examination of injuries resulting from transport injuries.
4. Types of falls from a height.
5. To be able to appoint a forensic medical examination for injuries resulting from a fall from a height.

**List of questions for self-control.**

1. The concept of transport injury.
2. Automobile injury.
3. Rail injury.
4. Aviation trauma.
5. Injury on water transport.
6. Features of damage from a fall from a height.

**Topic 5. Forensic medical examination of gunshot injuries and explosive injuries.**

1. Classification of firearms, explosives,
2. Differential diagnostic signs of wounds,
3. Features of the production of expertise.

**Methodical instructions.** In forensic practice, there are quite often examinations related to the study of injuries in living persons and corpses caused by sharp objects and firearms. Lawyers are always interested not only in the type of traumatic injury, but also in its mechanism, causes and consequences of injuries, which can confirm the investigative version or, conversely, exclude it, and also makes it possible to determine the duration of the injury, the type of object or any factor that caused the injury. , and finally set the truth.

Therefore, employees of the investigating authorities, the prosecutor's office, the court, the legal profession should know the characteristic injuries, the possible causes of death in injuries with sharp objects and firearms, and what the expert is guided by when giving a forensic medical expert assessment in case of traumatic injuries.

Gunshot injuries are understood as a type of mechanical injury that occurs as a result of a shot from a firearm, the explosion of a projectile, grenade, fuse or some kind of explosive.



A specific feature of the occurrence of gunshot injuries is that they are formed as a result of the impact of a projectile (bullet) having a relatively small mass, but flying at a speed of several hundred and even thousands of meters per second. Gunshot injuries can have a different origin and conditions of occurrence, which determines their great diversity. Depending on the origin, gunshot injuries are divided into bullet, shot, fragmentation. A weapon in which the projectile is driven by the energy of the combustion products of gunpowder is called a firearm.

Listeners should know

1. Shot damage factors, explosion damage factors.
2. Appointment of a forensic medical examination in case of gunshot and explosive injuries.
3. Damage caused by sharp objects.
4. Appointment of a forensic medical examination in case of injuries arising from the action of sharp objects.

**List of questions for self-control.**

1. The concept of sharp tools, their classification.
2. Damage from piercing weapons. Stab wounds.
3. Chopped damage. Damage from sawing tools.
4. Gunshot injuries: concept, classification.
5. Entrance gunshot wounds. wound channel. Exit gunshot wounds. Issues addressed by the SME in the study of gunshot injuries.
6. Explosive damage. Possibilities of SME in the study of damage caused by an explosion.

**Topic 6. Mechanical asphyxia .**

1. Familiarization of students with the diagnosis of death from asphyxia, the stages of the course of asphyxia and its consequences.
2. Differential diagnosis of intravital strangulation furrow.
3. Features of the production of forensic medical examinations for various types of mechanical asphyxia.

**Methodical instructions.** This topic is relevant for understanding the processes taking place in the body with the participation of oxygen .As you know, complex redox processes are constantly carried out in the human body. At the same time, cells and tissues are constantly washed by arterial blood, which contains the nutrients and oxygen necessary for human life. If nutrients come from the gastrointestinal tract, then oxygen comes through the lungs from the inhaled air. The removal of decay products and carbon dioxide from the human body occurs as a result of metabolic processes and gas exchange through venous blood, intestines and exhaled air.

Violation of redox processes in the human body for various reasons, including violent ones, leads to health problems and even death.

This topic is complex. When studying it, it is necessary to pay attention to the following concepts: hypoxia, its types; mechanical asphyxia, types of mechanical asphyxia; stages of mechanical asphyxia.

After studying this topic, students should know:

1. The concept of asphyxia and hypoxia.
2. Distinguish types of asphyxia.
3. Know the stages of mechanical asphyxia.
4. Genesis of death in mechanical asphyxia.
5. Types of drowning.
6. Forensic medical examination in mechanical asphyxia.

List of questions for self-control.

1. The concept of asphyxia and hypoxia.
2. Stages of mechanical asphyxia.
3. Asphyxia from compression.
4. Obstructive asphyxia.
5. aspiration asphyxia.

### **Topic 7. Injury and death from exposure to physical factors.**

1. General and local action of high and low temperature;
2. examination of corpses found in the fire and in cases of death in the cold.
3. Electrical injury.

**Methodical instructions.** As you know, the human body is adapted (within certain limits) to the effects of external factors. And yet, disorders in the state of health occur in those cases when the threshold of these effects exceeds the biological, physiological and mental capabilities of a person, and then painful changes of a general and local nature occur, up to the death of a person. People try to use various means to prevent these painful disorders. However, these funds are rather limited. And it is not uncommon for forensic doctors to give medical opinions in cases of severe health disorders and even death under such external influences on a person as extreme temperatures, electric shock, changes in atmospheric pressure.

Listeners should know:

1. the effect of extreme temperatures on the human body.
2. The effect of electric current on a person.
3. The action of low barometric pressure.
4. Effect of radiant energy on the human body.
5. Possibilities of forensic medical examination in the study of injuries from exposure to physical factors.

When studying this topic, special attention should be paid to morphological features that make it possible to establish the lifetime or post-mortality of injuries when a person's body gets into a fire or dies from hypothermia.

**List of questions for self-control.**

1. Electrical damage.
2. Damage caused by extreme temperatures.
3. Damage due to pressure change.
4. The action of various types of radiant energy.

**Topic 8. Forensic medical examination of poisonings.**

1. Familiarization of students with various types of poisoning, food poisoning, potent and narcotic drugs.
2. Patho- and thanatogenesis, manifestations and causes of death in case of poisoning by certain groups of poisons. Establishing the fact of alcohol consumption and the degree of intoxication.
3. Drug addiction and substance abuse.
4. The role of laboratory research in the diagnosis of death from poisoning.

**Methodical instructions.** The deterioration of the criminal situation in the Russian Federation and other CIS countries is accompanied by a significant increase in the number of attacks on a person with the help of various poisonous substances. The number of fatal poisonings is now on the rise. This applies to both murders and suicides. It is also necessary to recognize the fact that the proportion of acute and chronic poisonings as accidents in everyday life is still large. All this indicates the importance of improving forensic toxicology and forensic chemical examination of poisonings.

Students should know the concept of poison, poisoning, the effect of a poison on the human body, the types of poisons and symptoms of poisoning with certain poisons, the features of examining the scene of an incident in case of suspected poisoning.

Poison is a measure of the action of chemicals, as a result of which, under certain conditions, poisoning occurs. Toxicology is the study of the effect of toxic substances on the human and animal body. Forensic medicine, in turn, studies and develops methods for proving poisoning during a forensic medical examination of a living person and a corpse, including evidence of death from poisoning. In the national economy, medicine and everyday life, chemical compounds are currently widely used in the form of technical liquids, fertilizers, pesticides, and medicinal substances. Such chemicalization of many aspects of human activity has led to contact with chemicals of significant contingents of the population and, as a result, to an increase in the number of severe and fatal poisonings. In expert practice, more

often one has to deal with acute poisoning in everyday life, less often with occupational poisoning in industry and agriculture. Acute poisoning is mostly the result of accidents.

Listeners should know:

1. The concept of poison, doses of poisons, types of poisons.
2. The concept of poisoning.
3. Poisoning by various types of poisons.
4. Alcohol poisoning and drug poisoning.
5. Food poisoning.

**List of questions for self-control.**

1. General information about poisons. The concept of the dose of poison, types of poisoning.
2. Functional poisons.
3. Destructive poisons.
4. Hemotropic poisons.
2. Diagnosis of poisoning and their expert evaluation.
3. Alcoholic and food poisoning.

**Topic 9. Forensic medical examination in cases of holding medical workers liable for poor quality medical care and professional offenses .**

1. Familiarization of students with medical deontology, responsibility for professional and professional offenses of medical workers in accordance with the Criminal Code of the Russian Federation,
2. Fundamentals of the legislation of the Russian Federation on the protection of the health of citizens, features of the commission forensic medical examinations.

**VII. TOOLS AND TECHNICAL SUPPORT OF THE DISCIPLINE**

The list of material, technical and software of the discipline is given in the table.

Name of special rooms and rooms for independent work	Equipment of special rooms and rooms for independent work	List of licensed software.
690922, Primorsky Territory, Vladivostok, Russky Island, Saperny Peninsula, Ayaks settlement, 10, Room M 628	Classroom of histology, cytology and embryology (tables, posters, histological preparations) Microscope Altami BIO 4– 12 pcs	Windows Seven Enterprise SP3x64 Operatingsystem Microsoft Office Professional Plus 2010 an office suite that includes software for working with various types of

	Personal Computer	documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - software for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - a software package for creating and viewing electronic publications in PDF format; WinDjView 2.0.2 is a program for recognizing and viewing files with the same name format DJV and DjVu .
690922, Primorsky Territory, Vladivostok, Russian Island, Saperny Peninsula, Ayaks settlement, 10 M422 Training room for classes seminar and lecture type	Multimedia Audience: Monoblock Lenovo C360G-i34164G500UDK; Projection screen ProjectaElproElectrol , 300x173 cm; Multimedia projector, Mitsubishi FD630U, 4000 ANSI Lumen , 1920x1080; Mortise interface with automatic cable retraction system TLS TAM 201 Stan ; Document camera Avervision CP355AF; Sennheiser EW 122 G3 UHF lavalier radio system as part of a wireless microphone and receiver; LifeSizeExpress 220-Codeconly - Non- AES video conferencing codec ; Network video camera Multipix MP-HD718; Two LCD panels 47", Full HD, LG M4716CCBA; Audio switching and sound amplification subsystem; centralized uninterruptible power supply	Windows Seven Enterprise SP3x64 Operatingsystem Microsoft Office Professional Plus 2010 an office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - software for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - a software package for creating and viewing electronic publications in PDF format; WinDjView 2.0.2 is a program for recognizing and viewing files with the same name format DJV and DjVu .
Multimedia auditorium Vladivostok, Fr. Russian p Ajax d.10, Building 25.1, room. M723 Area 80.3 m2 (room for self-study)	Monoblock Lenovo C360G-i34164G500UDK 19.5" Intel Core i3-4160T 4GB DDR3-1600 SODIMM (1x4GB)500GB Windows Seven Enterprise - 12 pieces; Wired LAN - Cisco 800 series ; wireless LANs for students are provided with a system based on 802.11a/b/g/n 2x2 MIMO(2SS) access points.	Windows Seven Enterprise SP3x64 Operatingsystem Microsoft Office Professional Plus 2010 an office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression;

		<p>ABBYY FineReader 11 - software for optical character recognition;  Adobe Acrobat XI Pro 11.0.00 - a software package for creating and viewing electronic publications in PDF format;  WinDjView 2.0.2 is a program for recognizing and viewing files with the same name format DJV and DjVu .</p>
<p>690005, Vladivostok, st. Russian 55, GBUZ "Regional Clinical Hospital No. 2" Agreement 3921/12 of 04/01/2016 24-hour hospital</p>	<p>Electrohydraulic operating table "SEJERIE 8600"; Drill with a set of " Sirona M-1"; Aurora lamp for light fillings  Negatoscope 1-frame; Camera "ultra light "  Dressing table P-1; Strong micromotor with handpiece and electrodes; Retractor standard; Lip and cheek retractor  UV camera "ultra- light "; Retractor for lips and cheeks; Maxillofacial separator; Punch laryngeal with changeable direction ; Sterilizer gp-40 4mo; Negatoscope 2-frame  Compressor-114; Bipolar holder . tool ./ d. coagulum .; Dressing table p-1  Storage chamber for sterile instruments  PhysiodispenserSurgicAP ; Saeshin dental motor Fonte 100/100EI; Dental chair; Ventilator /artificial ventilator /LTV 1200; Ventilator " Elan -NR" with a humidifier; Monitor module gas Poet IQ2 Critical Systems Inc./USA/ ; Fabius anesthesia machine Plus with accessories /Germany/  breathing machine Blease Focus , SpaceLabs Healthcare /USA; Narcotic breathing . device 3 gas. model ATNER 6; Ventilator SAVINA 300 with accessories; Anesthesia depth monitor "BIS VISTA"; Inhalation anesthesia device "ELAN-NR</p>	

	<p>"POLYNARCON-E-VITA";  Anesthesia -respiratory apparatus  "VENAR SUPRA" with medical  compressor ; Microprocessor-  based anesthesia and respiratory  apparatus "TAKAOKA " with  microprogram ; Inhalation  ventilator SAVINA; Defibrillator -  Monitor " M - Series "with  automatic and manual mustache;  Monnal T 75 ventilator  Monitor for measuring the  concentration of gases and  anesthetic substances ; Email  pacemaker-analyzer ESKAN-01-  LMT; Syringe pump ATOM S-  1235 /Japan/; Defibrillator m -  series " zoll "; Bedside Monitor _  triton mpr-01  Monitor of the patient 6 channel.  Genuity 8100E " Criticare ";  Laryngoscope /handle and 2 blades  3.4/  medelkom ultrasound scanner  complete with adapt. for two  sensors; Defibrillator with LCD  monitor, built-in printer; Scales for  newborns tanita 1583 electronic;  Glucose monitor i - pro 2 mmt-  7745ww; Apt. artificial lung  ventilation medumat standard a  with mod . oxygen supply ;  Respiratory rate counter; First aid  suitcase ulm case system basis  with amplifier; Electrocardiograph  3-ch. ECG 1003; Portable pulse  oximeter NONIN 9500 ONYX;  pulse oximeter Storm 5000  Medical compressor _ DIXION  Hummer /China/  Patient monitor STORM 5900;  CHAIR gynecological KG-3M;  Table procedural MSK-504;  Gynecological chair "Grace 8400"  Mobile irradiator; Electrosurgical  apparatus "FOTEK"4 UV  bactericidal chamber KB-Ya-FP  "Ultralight"; Sterilizer air  automatic GP-160-PZ; Installation  of RCD 10-01- "MEDEL"</p>	
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	<p>Camera UF - bakterizidny for storage.ster .honey. tool . KB-I-FP; Surgical aspirator Vacus 7305; Mobile surgical LED lamp Emaled 200 P Portable monitor MnSDP-2 for daily measurement of art .pressure; blood dispenser individual d / reanimation ward .; Electrostimulator STIMEL-01; The monitor wearable daily MnSDP with processing . monitoring system . arterial.pressure.HealthSTATS ; Electrocardiograph 3-channel mobile Heart Mirror 3D; Electrocardiograph 3-ch. ECG 1003; Complex hardware and software day . monit . AD " BaPiLAB "; Ultrasonic device " Doppi " incl . The tuning fork is graduated; transmitter Minilink ; SCALES medical VEM-150 INSULIN PUMP included: infusion set, needles ; Guardian REAL- Tim Continuous Glucose Monitoring System ; Workplace of a podiatrist "Diabetic foot"; Transcutaneous monitor for percutaneous control TCM 400/3can / ; Spirograph SPIRO USB; perimeter portable portable A set of trial spectacle lenses (large); pulse oximeter portable Armed YX 301 NegatoscopeRenex NCP 1; Height meter RM-2 with scales RM-3; Meter (IADM...) Couch KMS-01-"MSK" medical . lookout</p>	
<p>Reading rooms of the FEFU Scientific Library with open access to the fund (building A - level 10) (room for self-study)</p>	<p>HP ProOpe 400 All-in-One 19.5 (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD+/- RW,GigEth,Wi-Fi,BT,usbkbd /mse,Win7Pro (64-bit)+Win8.1Pro(64-bit),1-1-1 Wty Internet access speed 500 Mbps.</p>	<p>Windows Seven Enterprise SP3x64 Operatingsystem Microsoft Office Professional Plus 2010 an office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.);</p>



	<p>Workplaces for people with disabilities are equipped with Braille displays and printers; equipped with: portable devices for reading flat-print texts, scanning and reading machines , a video enlarger with the ability to regulate color spectra; magnifying electronic loupes and ultrasonic markers</p>	<p>7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - software for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - a software package for creating and viewing electronic publications in PDF format; WinDjView 2.0.2 is a program for recognizing and viewing files with the same name format DJV and DjVu .</p>
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For conducting training sessions in the discipline, as well as for organizing independent work, students have access to the following laboratory equipment and specialized rooms that comply with current sanitary and fire safety standards, as well as safety requirements for educational and scientific production work.

In order to provide special conditions for the education of people with disabilities and people with disabilities in FEFU, all buildings are equipped with ramps, elevators, lifts, specialized places equipped with toilets, information and navigation support signs.

## VIII . EVALUATION FUNDS

For the discipline Forensic Medicine, the following evaluation tools are used:

Oral questioning:

1. Interview (OQ-1)
2. Presentation / report (OQ-3)

Written papers:

1. Test (WW-1)
2. Abstract (WW-4)
3. Multi-level tasks and tasks (WW -11)
  1. 4. Case (WW -14)

### **Oral Questioning**

An oral survey allows you to evaluate the knowledge and horizons of the student, the ability to logically construct an answer, the possession of monologue speech and other communication skills.

Interview (I-1) is a means of control organized as a special conversation between a teacher and a student on topics related to the discipline being studied, and designed to determine the amount of knowledge of the student in a particular section, topic, problem, etc.

Presentation / message (P-3) - a product of the student's independent work, which is a public performance to present the results of solving a specific educational, practical, educational, research or scientific topic.

### **Written papers**

A written answer teaches to the accuracy, conciseness, coherence of the presentation of thought. Written verification is used in all types of control and is carried out both in classroom and extracurricular work.

Test (WW-1) is a system of standardized tasks that allows you to automate the procedure for measuring the level of knowledge and skills of a student.

Reference paper (WW-4) - The product of the student's independent work, which is a summary in writing of the results of the theoretical analysis of a certain scientific (educational and research) topic, where the author reveals the essence of the problem under study, gives different points of view, as well as his own views on it .

Multi-level tasks and tasks (WW-11). Distinguish tasks and tasks:

- a) the reproductive level, which allow assessing and diagnosing knowledge of factual material (basic concepts, algorithms, facts) and the ability to correctly use special terms and concepts, recognition of objects of study within a certain section of the discipline;
- b) reconstructive level, allowing to evaluate and diagnose the ability to synthesize, analyze, generalize factual and theoretical material with the formulation of specific conclusions, the establishment of cause-and-effect relationships;
- c) creative level, allowing to evaluate and diagnose skills, integrate knowledge of various fields, argue one's own point of view.

Case (WW-14) is a problematic task in which the student is asked to comprehend the real professionally oriented situation necessary to solve this problem.

### **Methodological recommendations defining procedures for assessing the results of discipline**

#### **Evaluation funds for interim certification**

Intermediate certification of students in the discipline "Clinical pharmacology" is carried out in accordance with local regulations of FEFU and is mandatory. Form of discipline reporting - exam (12th, spring semester). The examination in the discipline can be conducted both in the form of an oral interview and in the form of testing. The oral examination in the discipline includes answers to 3 questions.

#### **Methodological guidelines for passing the exam**

The exam is accepted by the leading teacher. With a large number of groups with one teacher or with a large number of flows, by order of the director of the department (deputy director for educational and educational work), it is allowed to attract other teachers to help the leading teacher. First of all, teachers are involved who conducted practical classes in the discipline in groups.

In exceptional cases, in agreement with the Deputy Director of the School for Educational and Educational Work, the Director of the Department has the right to take an exam in the absence of a leading teacher.

The form of the examination (oral, written, etc.) is approved at the meeting of the department in agreement with the head in accordance with the working program of the discipline.

During examination the students can use the working program of discipline and also with the permission of the teacher holding examination, reference books and other grants (textbooks, manuals, the recommended literature, etc.).

The time given to the student to prepare for the answer should be no more than 20 minutes. After this time, the student must be ready to answer.

The presence at the control event of unauthorized persons (except for persons conducting inspections) without the permission of the relevant persons (rector or vice-rector for educational and educational work, director of the School, head of the EP or director of the department) is not allowed. Persons with disabilities and persons with disabilities who do not have the possibility of independent movement are allowed to a control event with accompanying persons.

### **Evaluation tools for intermediate certification**

#### **Exam questions**

1. The concept of "forensic medicine" and forensic medical examination.
2. The subject and tasks of forensic medicine.
3. Research methods in forensic medicine.
4. Procedural procedure for the production of a forensic medical expertise in criminal cases.
5. Procedural procedure for the production of a forensic medical expertise in civil cases.
6. Organization of the forensic medical service in the Russian Federation.
7. Classification of medical examinations.
8. The main differences between forensic examinations and non-judicial examinations.
9. Legal status of an expert.
10. Legal status of a specialist.
11. The main differences between an expert and a specialist.
12. Participation of a doctor in investigative actions.
13. Evaluation of the expert opinion by the investigator and the court.
14. Dying and death.

15. Early changes in the corpse.
16. Late changes in the corpse.
17. Methods for establishing the prescription of death.
18. Forensic examination of a corpse with mechanical asphyxia.
19. Types of asphyxia.
20. Features of the study of corpses during self- hanging and strangulation.
21. Injuries on the corpse during the closure of the external respiratory tract hard and soft material.
22. Features of the study of corpses during drowning.
23. Features of the study of the corpse at the place of its discovery.
24. Forensic examination of a corpse.
- 25- Forensic medical examination of a corpse with blunt trauma.
26. Damage caused by blunt objects.
27. Complications after blunt trauma.
28. Forensic medical examination in case of auto-injury.
29. Characteristic and specific injuries in auto-injury.
- ZO. Types of auto-injuries.
31. Damage caused by rail.
32. Poisonous substances: concept, classification.
33. Poisoning: concept, classification.
34. Principles of recognition of human poisoning.
35. Forensic examination of a corpse in case of poisoning, suspected poisoning.
36. Forensic medical examination of the victim during poisoning.
37. Examination of alcohol intoxication.
38. Criteria and degree of alcohol intoxication.
39. Medico-biological aspects of alcohol and drugs intoxication.

40. Examination of alcohol and drug intoxication in case of study of the corpse.
41. Qualitative and quantitative methods for the determination of alcohol.
42. Forensic medical examination of corpses, persons who died during damage by technical and natural electricity.
43. Reasons and grounds for the examination of living persons.
- 44.0 research objects in the department of forensic medical examination living persons.
45. Forensic medical examination of the degree of harm caused.
46. Signs of mild, moderate and severe harm to health.
- 47-Forensic medical examination of the state of health.
48. Forensic medical examination of simulation and aggravation.
49. Reasons and grounds forensic medical examination of sexual states and sexual crimes.
50. Controversial sexual conditions.
51. Sexual crimes.
52. Gunshot injuries: concept, classification.
53. Damage factors of a shot and their characteristics.
54. Damage when shot at close range.
55. Damage when fired at close range.
56. Forensic medical examination of a corpse during gunshot damage.
- 57.0 witnessing and forensic medical examination of living persons with gunshot wounds.
58. Methods of research of gunshot injuries.
59. Forensic medical examination of acute trauma.
60. Damage caused by piercing-cutting, cutting, piercing tools. Morphological features.
61. Complications when inflicting wounds with piercing and cutting items.

62. Forensic medical examination of corpses, persons who died from exposure to high and low temperatures.
63. Research methods in forensic medicine for identification corpses of unidentified persons.
64. Physical evidence of biological origin: concept, classification.
65. Organizational bases of forensic medical examination material evidence.
66. Procedural order of forensic medical examination material evidence.
67. Objects of research in the forensic biological department: blood, saliva, hair.
68. Subjects of research in the forensic chemical department.
69. Objects in the forensic laboratory.
70. Forensic medical examination based on the materials of the case.
71. Forensic medical examination of medical activity.
72. Forensic medical examination in cases of professional violations of medical workers and employees of medical institutions.

**Criteria for grading a student on an exam  
in the discipline "Forensic Medicine":**

<b>Points (ratings of evaluation)</b>	<b>Exam grade (standard)</b>	<b>Requirements for the formed competencies</b>
85-100	"passed" / "excellent"	The grade "excellent" is given to a student if he has deeply and firmly mastered the program material, exhaustively, consistently, clearly and logically expounds it, knows how to closely link theory with practice, freely copes with tasks, questions and other types of application of knowledge, and does not find it difficult to answer when modifying tasks, uses material from monographic literature in the answer, correctly substantiates the decision made, possesses versatile skills and techniques for performing practical tasks.

76-85	"passed" / "good"	The grade "good" is given to a student if he knows the material well, presents it competently and to the point, avoiding significant inaccuracies in answering the question, correctly applies the theoretical provisions in solving practical issues and tasks, possesses the necessary skills and techniques for their implementation.
61-75	"pass" / "satisfactory"	The grade "satisfactory" is given to the student if he has knowledge only of the basic material, but has not mastered its details, allows inaccuracies, insufficiently correct wording, violations of the logical sequence in the presentation of the program material, has difficulty in performing practical work.
< 61	"not passed" / "not satisfactory"	The "unsatisfactory" mark is given to a student who does not know a significant part of the program material, makes significant mistakes, performs practical work uncertainly, with great difficulty.

### **Evaluation tools for current certification**

Current certification of students in the discipline "Forensic Medicine" is carried out in accordance with the local regulations of the Far Eastern Federal University and is mandatory, carried out in the form of control measures (oral answer, test, abstract, solving situational problems) according to actual student learning outcomes and is carried out by the lead teacher.

The objects of assessment are:

- academic discipline (activity in the classroom, timely completion of various types of tasks, attendance at all types of classes in the discipline being certified);
- the degree of assimilation of theoretical knowledge;
- the level of mastery of practical skills and abilities in all types of educational work;
- results of independent work.

A calendar plan of control measures for the discipline is drawn up. Evaluation of attendance, activity of students in the classroom, the timeliness of the implementation of various types of tasks is based on the journal, which is kept by the teacher during the academic semester.

### **Situational tasks (case method) for practical exercises:**

1. Based on the data presented, determine the age of death of a person:

"The police department No. 1 of the Ministry of Internal Affairs for the city of Izhevsk received a statement about the death of Mr. A. The task force, which arrived at the scene, examined him and examined the corpse at the place of his discovery. At the same time, the following post-mortem changes were recorded by



the forensic expert in the "Protocol of the scene of the incident" : ... the eyes of the corpse are somewhat ajar, the corneas with drying phenomena ( Larcher spots ). The red border of the lips is also somewhat dried up. The cadaveric spots are purple, located on the back. When pressed, they turn pale and completely restore their original appearance after 60-120 seconds. Rigor mortis is well expressed in the masticatory muscles, muscles of the neck and fingers. It is absent in other muscle groups. When the edge of the palm strikes the biceps muscle of the shoulder, a muscle roller up to 1.0 cm high is formed at the site of impact in 1-2 seconds. The thermometry of the corpse was carried out using an electronic thermometer " Termed " in the depths of the liver at an ambient temperature of +18.239°C. The temperature value of the first measurement is +30.234°C. The second measurement was carried out after 15 minutes. The temperature of the corpse at the second measurement is +30.048°C.”

2. Based on the data presented, form a forensic diagnosis and answer the following questions:

1. Cause and prescription of death?

2. Was Mr. A. at the time of death in a state of alcoholic intoxication, what degree?

Extract from the Act of the forensic medical examination of citizen A: “... The corpse was delivered to the morgue in the following clothes: a black combined jacket with a long sleeve with a zipper; blue jeans-type trousers produced by the Moscow sewing association; a brown shirt with a large check, photographs of this subject, a travel card for the month of May for students, two handkerchiefs and two scraps of paper with an illegible last name were found in the pocket; red swimming trunks with a waist half -belt in the form of an ornament; gray socks. The male corpse is 20-25 years old in appearance, with a body length of 183 cm, correct physique, average nutrition, cold. Muscle rigor is not expressed. Corpse spots are not contoured . The skin of the body, limbs, head is greenish with detachment of the epidermis and the formation of blisters. The bones of the cranial vault are intact to the touch. Black hair. The eyes are closed, the connective sheath of the eyelids is dark red. The corneas are cloudy. The pupils are not contoured . The cartilage and bones of the nose are intact to the touch. The nasal passages are free. Mouth closed, tongue protruding from mouth. On the upper jaw, 1 incisor is missing on the left. A plastic upper jaw prosthesis was installed. On the upper lip there is a weakly pronounced black mustache, as well as a scar on the left - diseases of the "cleft lip"; a similar scar was identified in the sky. Ear canals are free. Neck without damage. The chest is symmetrical elastic. Anterior abdominal wall at the level of the costal arch. The external genitalia are formed correctly. The back passage is closed. Head

circumference is 59 cm, foot length is 26 cm. There are no hemorrhages in the musculocutaneous flap of the chest and abdomen. The internal organs are located correctly, according to the cavities. Free liquid in the last 200 ml. The peritoneum is green. The back of the tongue is clean, its papillae are pronounced, there are no hemorrhages in the tissue. The hyoid bone and cartilage of the larynx are intact. Both lobes of the thyroid gland are of normal shape and size, dark red fine-grained on section. There is no content in the lumen of the esophagus, its mucosa is brownish smooth. The lumen of the trachea and large bronchi is free. The mucous membrane of these departments is dark red. The lungs are enlarged in volume, grayish-red soft-airy with flat light red hemorrhages under the pulmonary pleura. The tissue of the lungs on the cut is grayish-red full-blooded. The inner surface of the aorta is reddish smooth. Adrenal glands with central collapse. Both kidneys are 10x4x4 cm, their tissue is red-brown in section with a clear border of pyramids. The fibrous capsule of the kidneys is removed easily, exposing their smooth surface. The mucous membrane of the pelvis and ureters is cyanotic. There is no urine in the bladder, its mucosa is reddish-bluish smooth. The testicles were not examined due to lack of evidence. The spleen of the usual shape and size on the section is dark red with a small scraping. There is no content in the pericardial shirt, its inner surface is smooth grayish-brown. Flabby airy heart 11x10x3 cm, weighing 280 grams. The coronary arteries of the heart are passable, their inner surface is brownish smooth. Heart valves are thin, chordal filaments are of medium length, papillary muscles and trabeculae are pronounced. The thickness of the muscular wall of the left ventricle is 1.0 cm, the thickness of the right ventricle is 0.3 cm. The heart tissue is yellowish-red-brown in section, uneven blood supply. In the gallbladder there are traces of orange bile, its mucosa is smooth in color of the contents. The liver is of normal shape and size, its tissue in the section is brownish-greenish, airy, without a characteristic pattern of the structure. The pancreas is flabby, unstructured on section. In the lumen of the stomach, up to 300 ml of mushy brownish contents with pieces of undigested onion feathers, its mucous membrane is smooth grayish. In the small and large intestine, the contents characteristic of them, the folding of the mucosa is not expressed. There were no hemorrhages in the musculocutaneous flap of the head. The bones of the cranial vault are intact. The dura mater is whitish. The brain tissue is mushy, structureless. The bones of the base of the skull are intact. The skeleton of the body is intact. On a chemical study of the muscle. For biological testing, a blood sample. Histological - heart and lung, kidney for plankton. The corpse was photographed... Extract from the act of forensic chemical research No. ... dated ... "... During a chemical study, 1.37‰ of ethanol was found in the muscle from the corpse of an Unknown young man ...". Extract from the act of forensic

histological examination No. ... dated ... g. "... Lungs: emphysema ... Kidney: valves of diatom plankton were found ...".

3. Forensic medical diagnosis. A stab-cut wound of the anterior surface of the chest on the left at the level of the fifth intercostal space along the midclavicular line, penetrating into the chest cavity with through damage to the heart shirt and the anterior wall of the left ventricle of the heart. Hemopericardium (450 ml). Hemotamponade of the heart. Fibrous-cavernous pulmonary tuberculosis.

Questions:

1. What is the main disease?
2. Specify the complication of the underlying disease?
3. Specify concomitant disease?
4. Complete the "Medical Death Certificate"?
5. Formulate a conclusion about the cause of death

4. It follows from the protocol of the inspection of the scene that the inspection began at 9 am. The place of inspection is the beach. The corpse of an unknown man, 20-25 years old, lying on his back was found at the water's edge. Of the clothes on the corpse, only blue swimming trunks. Rigor mortis is expressed in the masticatory muscles, absent in the muscles of the neck, upper and lower extremities. Cadaveric spots are abundant, purple in color, located on the back surface of the body, when pressed with a dynamometer, they disappear and are restored after 20 s. The temperature in the rectum is 35 °C at an ambient temperature of 23 °C. The eyes are closed, the pupils are 0.5 cm in diameter, the connective membranes of the eyes are gray, without hemorrhages. On the skin of the right iliac region, a peculiar pattern was found in the form of a tree-like branching, reddish-brown in color, passing to the surface of the right thigh. No other damage was found. At 30 cm from the corpse is a beach lounge with charring, splitting in the center. The inspection ended at 2 pm.

Questions:

1. What are the reliable signs of death noted in the protocol?
2. Set the prescription of death?
3. Point out the mistake made in the study and description of cadaveric phenomena related to the second question?
4. What are the signs that indicate the nature of injuries, the mechanism of their formation, the type of traumatic object?
5. What features does the protocol for examining the scene of the incident have when examining the corpse of an unknown person?

5. Circumstances of the case. It follows from the decision that Mr. G. was found dead in the street (on the roadway). Outdoor research. The head is deformed (flattened). On the skin of the forehead and scalp there is an intermittent abrasion with a dense sinking surface. In the area of the upper eyelids - dark blue bruises. A copious amount of liquid blood flows from the openings of the nose. No other damage was found on external examination. Internal research. In the soft tissues of the left half of the chest - an extensive dark red hemorrhage. Double fractures of II - XI ribs were found on the left along the anterior axillary and scapular lines. Edges of fractures - with signs of compression along the outer bone plate, with signs of stretching - along the inner one. There are focal dark red hemorrhages in the intercostal muscles in the projection of the fractures. In the region of the roots of the lungs, the gates of the kidneys and spleen, large-focal impregnating hemorrhages. Linear superficial rupture of the right lobe of the liver. In the abdominal cavity about 200 ml of dark red liquid blood. A multi-fragmented fracture of the vault and base of the skull (according to the "spider web" type) with a transition to the facial skeleton was found. The frontal lobes of the brain are crushed, saturated with blood. Under the pia mater of the cerebellum - thin hemorrhages. There is liquid blood in the ventricles of the brain. The spine, bones of the pelvis and limbs are intact. From the opened cavities and from the organs there was a smell of alcohol.

Questions:

1. What is the category of death?
2. Set the type of death?
3. Determine the type of death?
4. Make a forensic diagnosis?
5. Formulate typical conclusions for this type of death?

#### **Criteria for evaluation:**

"Excellent" (90-100 points) - the answer is correct, scientifically argued, with links to topics covered.

"Good" (80-89 points) - the answer is correct, scientifically argued, but without reference to the topics covered.

"Satisfactory" (70-79 points) - the answer is correct, but not scientifically argued, or the answer is incorrect, but an attempt is made to substantiate it from alternative scientific positions covered in the course.

"Unsatisfactory" (0-69 points) - the answer is incorrect and not scientifically substantiated.

#### **Assessment tools for ongoing appraisal**

##### **Test tasks**

1. Sudden (sudden) according to WHO recommendations is considered to be death that followed from the onset of clinical manifestations of the disease no more than:

- a) **6 hours;**+
- b) 10 hours;
- c) 18 hours;
- d) 24 hours

2. Indicate the morphological signs of second-degree burns:

- a) Skinredness;
- b) coagulation necrosis of the surface layers of the dermis;
- c) **the formation of bubbles containing a clear or slightly turbid liquid.** +
- d) necrosis of the dermis to the full depth

3. What degree of alcohol intoxication is characterized by increased fatigue, emotional instability, impaired coordination of small movements?

- a) **lung;** +
- b) withredney;
- c) withsilt;
- d) tyazhyloy

4. To what degree of alcohol intoxication is characterized by significant emotional instability, unsteady gait, unclear speech, mental and orientation disorders, drowsiness?

- a) lyogkoy;
- b) **medium;** +
- c) withsilt;
- d) tyazhyloy

5. What degree of alcohol intoxication is characterized by a decrease in pain sensitivity up to its loss, a stupor state?

- a) lyogkoy;
- b) withredney;
- c) **strong;** +
- d) tyazhyloy

6. Who defines the category of death?

- a) **A forensic physician; +**
- b) lawenforcement agencies;
- c) without;
- d) a doctor

7. In the first hours, the color of bruising:

- a) blue-purple;
- b) **purple-red; +**
- c) red with a brown tinge;
- d) brownish-yellowish

8. The appointment of a forensic medical examination shall be mandatory to establish:

- a) The cause of death;
- b) the nature and degree of harm to health;
- c) the physical and mental condition of a suspect, accused, victim or witness;
- d) **in all the above cases +**

9. The study of cadaveric spots allows you to establish:

- a) The prescription of death;
- b) the probable cause of death;
- c) change in the position of the corpse
- d) **all of the above +**

**10. A forensic expert shall be criminally liable for:**

- a) refusing to give an opinion on an issue that goes beyond the scope of special knowledge;
- c) delayin the timing of the examination;
- c) **knowingly giving a false conclusion; +**
- d) negotiations with the participants in the process

11. For all cases of falling from a great height, a common feature is: a

- ) the presence of traces of dragging on the body;
- b) detection of ethyl alcohol in the blood;

c) detection of narcotic substances in organs;

d) **the predominance of internal damage over external** +

**12. At what impact does the nose shift in the direction opposite to the place of application of force:**

a) straight;

b) from top to bottom;

c) **lateral;** +

d) from bottom to top

**13. A puncture wound is characterized by:**

a) the formation of a tissue defect;

b) besieged lands;

c) **a significant predominance of the depth of the wound over the length;** +

d) tortuous wound canal

14. The Bureau of Forensic Medical Examination shall be under the jurisdiction of:

a) **Health authorities;** +

b) departments of the Ministry of Internal Affairs;

c) the Prosecutor General's Office;

d) the Ministry of Justice

15. Examination of the corpse at the scene of the incident begins with:

a) Cadaveric changes;

b) **the location and posture of the corpse;** +

c) detection and description of damage;

d) lodge carcass

16. When examining a corpse at the scene of an incident, if there is a piercing object in the wound, the doctor must:

a) **describe the wound and the object in it;** +

b) remove the object and hand it over to the investigator;

c) describe the wound after removing the object;

d) remove the object from the wound with the permission of the investigator

17. A change in the position of the corpse at the scene of the incident is indicated by all signs, except:

- a) **lack of pupil response to the administration of atropine; +**
- b) the presence of cadaveric spots on opposite surfaces of the body;
- c) discrepancy between the localization of cadaveric spots and the pose of the corpse;
- d) the absence of rigor mortis in certain muscle groups

18. The formation of cadaveric spots is associated with:

- a) redistribution of blood in the vessels during agony;
- b) **postmortem redistribution of blood under the influence of gravity; +**
- c) changes in the physicochemical properties of blood;
- d) changes in the rheological properties of blood

19. The rate of cooling of the corpse is influenced by all factors, except:

- a) Clothing;
- b) air temperature and humidity;
- c) the **posture of the corpse; +**
- d) fatness of the deceased;

20. When struck with a blunt object with great force on the head, the following are more often formed:

- a) Lacerations;
- б) **ссадины;**
- c) bruising;
- d) **fractures +**

21. Which of the following tools (weapons) refers to piercing-cutting with double-sided sharpening of the blade:

- a) **A dagger; +**
- b) a table knife;
- c) Finnish knife;
- г) **стамеска**



22. Characteristic injuries to the front seat passenger in a frontal collision of a passenger car include:

- a) fracture of the femoral neck;
- b) fracture of the calcaneus and talus;
- c) comminuted fracture of the ilium;
- d) **diaphyseal fractures of the femur** +

22. "Whip-shaped fracture" of the vertebrae of the cervical spine is formed when:

- a) rotation of the neck;
- b) **extension of the neck;** +
- c) lateral flexion of the neck;
- d) application of force along the axis of the spine

23. The caliber of the weapon shall be determined by:

- a) the diameter of the chamber;
- b) the length of the bore;
- c) the distance between the opposite rifling;
- d) **the distance between the opposite rifling fields** +

24. Loop compression refers to asphyxia:

- a) obstructive;
- b) compression;
- c) **strangulation;** +
- d) hanging

25. Evidentiary signs of death from aspiration of gastric contents (vomit) in the study of a corpse are:

- a) Acute pulmonary emphysema;
- b) **food masses in large and small bronchi;** +
- c) food masses in the pharynx and esophagus;
- d) vomit at the openings of the mouth and nose

26. The most dangerous thing for human life in case of electric shock is the passage of current through:

- a) The **brain;** +

b) both legs;

c) spleen;

d) liver

27. The most appropriate set of methods and techniques for diagnosing poisoning is:

a) macroscopic and histological;

b) macroscopic and chemical;

c) histological and chemical;

d) **macroscopic, histological and chemical** +

28. Chemical burns can cause:

a) **caustic poisons**; +

b) destructive poisons;

c) blood poisons;

d) functional poisons

29. Multiple semilunar abrasions on the skin of the neck are most characteristic of:

a) Drowning;

b) **strangulation by hands**; +

c) hanging;

d) compression of the chest and abdomen

30. Forensic medical examination in criminal cases of professional offenses of medical workers in all cases shall be:

a) **commission** +

b) repeated

c) stationary

d) primary

### Criteria for evaluating the performance of test tasks

Percentage of correct answers	Evaluation
From 86% to 100%	It's cool
From 85% to 76%	Ok
From 75% to 61%	Satisfactorily

Less than 61 %	Unsatisfactorily
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