

The Ministry of Health of the Russian Federation

**Federal State Budgetary Educational Institution  
of Higher Education  
"North-Western State Medical University  
named after I.I. Mechnikov"  
under the Ministry of Health of the Russian Federation**

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation)

**WORK PROGRAM OF THE ACADEMIC COURSE**

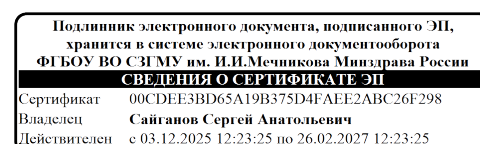
"Forensic medicine"

**Major:** 31.05.01 General Medicine

**Focus:** Arrangement and delivery of primary health care to the adult population in medical organizations

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The work program of the academic course "Forensic medicine" is based on the Federal State Educational Standard of Higher Education for major 31.05.01 General Medicine, approved by the order of the Ministry of Science and Higher Education of the Russian Federation dated August 12, 2020 No. 988 "On approval of the federal state educational standard of higher education – in major 31.05.01 General Medicine".

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The work program of the academic course was discussed at the meeting of the Department of Forensic Medicine

..... 2021, Protocol No.

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Approved by the Methodological Commission in major 31.05.01 General Medicine

May 11, 2021

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Reviewed by the Methodological Council and recommended for approval by the Academic Council

May 20, 2021

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Updated:

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### 1. The purpose of mastering the academic course

The purpose of mastering the academic course "Forensic Medicine" is the development of competency of student studying "General Medicine", aimed at mastering the knowledge, skills and abilities in the field of forensic medicine necessary to perform the duties of a specialist and expert in cases of involving a doctor to participate in investigative actions and the conduction of medical forensic examinations in accordance with the legislation of the Russian Federation.

### 2. The place of the academic course in the structure of the educational program

The academic course "Forensic Medicine" belongs to the indispensable part of Block 1 "Courses (modules)" of the basic professional educational program for major 31.05.01 General Medicine (educational level: specialist's degree), focus: Arrangement and delivery of primary health care to the adult population in medical organizations. The academic course is obligatory.

### 3. The list of planned course outcomes correlated with program outcomes

Code and name of the competency	Code and name of the competency achievement indicator
GPC-5. Student is able to assess morphofunctional, physiological conditions and pathological processes in the human body for solving professional tasks	AI-1 GPC-5.1. Student assesses the degree of patient's functional activity and independence in self-service, movement, communication
	AI-2 GPC-5.2. Student determines and interprets the patient's vital signs with follow-up control
	AI-3 GPC-5.3 Student determines the patient's physical development and functional condition rates with consideration of anatomical and physiological features of the patient's age

Competency achievement indicator code	Study outcomes (assessment criteria)	Assessment means
AI-1 GPC-5.1.	<b>Student knows:</b> the criminal procedure legislation on the examination of living individuals, the purposes of examination, rights and obligations of a doctor involved in the examination, the requirements for the examination report registration; injury types caused by physical and chemical impacts, the mechanism and prescription of their formation, methods of their study and registration; collection methods for biological objects in examination process.  Criminal procedure legislation on the examination of a corpse at the place of its discovery, the purposes of examination, rights and duties of a doctor involved in the examination of a corpse at the place of its discovery, the purposes of	Control questions Tests Case tasks

	<p>examination, the main tools and means necessary to examine a corpse and collect traces of biological origin, signs of biological death, cadaveric changes and supravital reactions, study methods and their informative significance, injury types caused by physical and chemical factors, the mechanism and prescription of their formation, methods of their investigation and registration, traces of biological origin, methods of their detection, collection and referral to laboratory testing, methods of recording the results of incident site inspection, features of examining a corpse at the place of its discovery under various types and circumstances of occurrence death, the main issues solved by the forensic medical examination.</p> <p><b>Student is able to:</b> assist the investigator in conducting an examination of suspects, the accused, victims and witnesses; establish the presence, nature, and morphological features of injuries; record (describe) them in the examination report; collect traces and objects of biological origin on the investigator's instructions.</p> <p>Student is able to: assist the investigator in examining a corpse at the place of its discovery, identifying and registering traces of biological origin; pronounce biological death, examine clothing and corpse, examine cadaveric changes, conduct supravital reactions; identify and describe injury caused by physical and chemical factors; identify and collect traces of biological origin (blood, semen, etc.); describe corpse examination results in the protocol of the incident site inspection; approximately determine the prescription of death coming, type of injuries and traumatic objects; help the investigator to state questions for making a decision on the appointment of a medical forensic examination</p>	
AI-2 GPC-5.2.	<p><b>Student knows:</b> the structural and functional foundations of pathological processes, the causes, the main mechanisms of development and outcomes of pathological processes, disorders in functioning of organs and systems, the modern classification of diseases, the patterns of diagnosis in various diseases, and injuries that caused death.</p> <p><b>Student is able to:</b> visually evaluate changes in the organs and tissues of a corpse, substantiate the nature of the pathological process, register a certification on the cause of death, state a pathoanatomical (forensic) diagnosis; describe morphological changes in the macroscopic objects under study;</p>	Control questions Tests Case tasks

	consider the issues of general pathology and modern theoretical concepts and trends in medicine	
	<b>Student has the skill of:</b> identifying and interpreting the following indicators: morphological changes and the results of laboratory study methods	
AI-3 GPC-5.3	<p><b>Student knows:</b> specifications and biophysical mechanisms of physical and chemical impacts on the body, the concepts of pathogenesis and morphogenesis of a disease (pathological condition), injury types caused by physical and chemical factors, mechanism and prescription of their formation, methods of their study and registration; methods of collecting biological objects during examination, principles of diagnosis, basic laboratory methods used in the forensic medical examination process and their informative value.</p> <p><b>Student is able to:</b> describe morphological changes in the macroscopic objects under study, consider the issues of general pathology and modern theoretical concepts and trends in medicine.</p> <p><b>Student has the skill of:</b> determining the main indicators of physical development and functional status, such as morphological changes and the results of additional study methods, taking into account anatomical and physiological features.</p>	Control questions Tests Case tasks

#### 4. Scope of the academic course and types of academic work

Type of academic work	Labor intensity	Semesters
		12
<b>Students and teacher cooperative work</b>	<b>72</b>	<b>72</b>
<b>Classroom work:</b>	<b>70</b>	<b>70</b>
Lectures (L)	24	24
Practical sessions (PS)	46	46
<b>Individual study:</b>	<b>36</b>	<b>36</b>
under the theoretical run	32	32
preparation for credit	4	4
<b>Interim assessment: credit</b> (taking the credit and group consultations included)	<b>2</b>	<b>2</b>
<b>Total labor intensity:</b> academic hours	<b>108</b>	
credit units	<b>3</b>	

**5. The content of the academic course, structured with units (topics) including the amount of academic hours and session types**

### 5.1. The content of the academic course units

Sl.No.	Name of the academic course unit	Annotated content of the academic course unit	The list of competencies
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			being developed in the process of mastering the unit
1	Procedural fundamentals and arrangement of forensic medical expertise in the Russian Federation	The concept of forensic medicine and forensic medical examination. A brief history of the forensic medicine development . Procedural fundamentals and arrangement of forensic medical examination in the Russian Federation. Forensic medical documentation. Federal Law “On State Forensic Activities in the Russian Federation”.	GPC-5
2	Forensic medical traumatology. Blunt injuries	Injury determination. Basic injury classifications. Challenges and methods of injury examination in forensic medicine. Harm to health and death caused by blunt injuries. Forensic medical specification and examination of injury in case of road accident and falling from height and on a surface.	GPC-5
3	Sharp injuries	Sharp objects, their classification, mechanism of action, morphological specifications of injuries. Determination of the direction and frequency of action, the sequence of injury infliction; group signs of injuring object and its identification.	GPC-5
4	Gunshot injuries	Firearms and ammunition. The injuring factors of shot and formation mechanisms of bullet injuries. Determination of direction and distance of shooting. Shotgun injuries depending on the distance of the shot. Additional - study methods.	GPC-5
5	Mechanical asphyxia and drowning	Classification of hypoxia, asphyxia and mechanical asphyxia. Pathophysiological and morphological - changes in the body in mechanical asphyxia. Damaging factors and their classification. Thanatogenesis and forensic diagnostics of hanging, strangulation by noose and hands. Forensic medical diagnostics of other types of mechanical asphyxia (from compression of the chest and abdomen, closure of the respiratory tract, in an isolated confined space). Types of drowning. Pathophysiological changes in the body and morphological signs in different types of drowning. Forensic medical diagnostics. Laboratory study methods and evaluation of their results.	GPC-5
6	Injuries caused by chemical and other physical factors	General issues of forensic toxicology. Classification of types and factors of their action on the body. Forensic - medical diagnosis of poisoning.	GPC-5

		Lesions caused by high temperature impact on the human body. Burns and burn disease. Lesions caused by the low temperature impact on the human body. Electrical injury: pathophysiology, tanotogenesis and - morphology. Forensic medical diagnostics.	
7	Inspection, examination and forensic medical expertise of living individuals	Causes for examination of living individuals and the issues being solved. The order of procedure. Study methods. Harm to health, its severity and severity criteria.	GPC-5
8	Forensic medical thanatology	The doctrine of death. Classification of death. Correlation between thanatology and intensive care, organ and tissue transplantation. Pronouncement of death. Early and late cadaveric changes. Modern methods of determining death prescription.	GPC-5
9	Examination of a corpse at the place of its discovery	Examination of a corpse at the place of its discovery/ Management and sequence of examination procedure. The rights and duties of a specialist. Specialist's equipment. Examination of a corpse. Pronouncement of death. Supravital reactions and cadaveric changes. Identification and collection of biological traces.	GPC-5
10	Forensic medical examination of a corpse	Forensic medical examination of a corpse. Collection of objects for laboratory study, registration of a medical death certificate. Negotiations on the results of the forensic medical examination of a corpse, development of a forensic medical diagnosis and expert conclusions.	GPC-5
11	Forensic medical expertise in criminal and civil cases related to the professional activities of medical workers	Federal laws and legal acts regulating the activities of medical professionals. Defects of medical care delivery and their classification. Crimes related to the professional activities of medical professionals and their specifications. The procedure and features of conducting a forensic medical examination in criminal and civil cases related to the professional activities of medical professionals.	GPC-5

## 5.2.Topical lecture plan

Sl. No.	Name of the academic course unit	Topics of lectures	Active forms of study*	Labor intensity (academic hours)
1	Procedural fundamentals and	L.1 Procedural fundamentals of processing and managing forensic	LC	2



	arrangement of forensic medical expertise in the Russian Federation	medical examination in the Russian Federation./ History, subject and content of forensic medicine. Forensic medical documentation.		
2	Forensic medical thanatology	L.2 Forensic medical thanatology The doctrine of death. Classification of death. Correlation between thanatology and intensive care, organ and tissue transplantation. Pronouncement of death. Early and late cadaveric changes. Modern methods of determining death prescription.	LC	2
3	Forensic medical traumatology. Blunt injuries	L.3 Forensic medical traumatology. Blunt injuries Injury determination. Basic injury classifications. Challenges and methods of injury examination in forensic medicine. Harm to health and death caused by blunt injuries.	LC	2
4	Lesions caused by a road accidents, falling from a height and on a surface	L.4 Forensic medical specification and examination of injury in case of road accident and falling from height and on a surface.	LC	2
5	Sharp injuries	L.5 Sharp objects, their classification, mechanism of action, morphological specification of injuries. Determination of the direction and frequency of action, the sequence of injury infliction; group signs of injuring object - and its identification.	LC	2
6	Firearm injuries	L.6 Firearms and ammunition. - The injuring factors of shot and formation mechanisms of bullet injuries. Determination of direction and distance of shooting. Shotgun injuries depending on the distance of the shot. Laboratory study methods.	LC	2
7	Mechanical asphyxia and drowning	L.7 Pathophysiological and morphological changes in the body in mechanical asphyxia. Damaging factors and their classification. Thanatogenesis and forensic diagnostics of hanging, strangulation by noose and hands. Types of drowning. Pathophysiological changes in	LC	2

		the body and morphological signs in different types of drowning. Forensic medical diagnostics. Laboratory study methods and evaluation of their results.		
8	Lesions caused by chemical factors	L.8 General issues of forensic toxicology. Classification of types and factors of their action on the body. Forensic medical diagnosis of poisoning.	LC	2
9	Inspection, examination and forensic medical expertise of living individuals	L.9 Causes for examination of living individuals and the issues being solved. The order of procedure. Study methods. Harm to health, its severity and severity criteria.	LC	2
10	Examination of a corpse at the place of its discovery	L.10 Examination of a corpse at the place of its discovery/ Management and process of inspection. The rights and duties of a specialist. Specialist's equipment. Examination of a corpse. Pronouncement of death. Supravital reactions and cadaveric changes. Identification and collection of biological traces.	LC	2
11.	Lesions caused by high and low temperatures and electricity	L.11 Lesions caused by high - temperature impact on the human body. Burns and burn disease. Lesions caused by the low temperature impact on the human body. Electrical injury: pathophysiology, tanotogenesis and morphology. Forensic medical diagnostics.	LC	2
12	Forensic medical expertise in criminal and civil cases related to the professional activities of medical workers	L.12 Federal laws and legal acts regulating the activities of medical professionals. Defects of medical care delivery and their classification. Crimes related to the professional - activities of medical professionals and their - specifications. The procedure and features of conducting a forensic medical examination in criminal and civil cases related to the professional activities of medical professionals	LC	2
TOTAL:			24	

\*LC – lecture-conversation

### 5.3.The topical plan of practical sessions

Sl. No .	Name of the academic course unit	Topics of practical sessions	Active forms of study	Means of actual monitoring	Labor intensity (academic hours)
1	Procedural fundamentals and arrangement of forensic medical expertise in the Russian Federation	PS.1 Procedural fundamentals and management of forensic medical expertise in the Russian Federation Forensic medical documentation.	GD	Testing Control questions	4
2	Forensic medical traumatology. Blunt injuries	PS.2 Harm to health and death caused by blunt injuries. Injury determination. Basic injury classifications. Challenges and methods of injury examination in forensic medicine. Harm to health and death caused by blunt injuries. Forensic medical specification and examination of injury in case of road accident and falling from height and on a surface.	GD RG ST	Testing Control questions Case tasks	4
3	Sharp injuries	PS.3 Harm to health and death caused by sharp injuries. Sharp objects, their classification, mechanism of action, morphological specifications of injuries. Determination of the direction and frequency of action, the sequence of injury infliction; group signs of injuring object and its	GD RG ST	Testing Control questions Case tasks	4

		identification.			
4	Gunshot injuries	<p>PS.4 Harm to health and death caused by gunshot injuries</p> <p>Firearms and ammunition. The -injuring factors of shot and formation mechanisms of bullet injuries. Determination of direction and distance of shooting. Shotgun injuries depending on the distance of the shot. Additional study methods.</p>	<p>GD</p> <p>RG</p> <p>ST</p>	<p>Testing Control questions</p> <p>Case tasks</p>	4
5	Mechanical asphyxia and drowning	<p>PS.5 Harm to health and death caused by mechanical asphyxia and drowning</p> <p>Classification of hypoxia, asphyxia and mechanical - asphyxia. Pathophysiological and morphological - changes in the body in mechanical asphyxia. Damaging factors and their classification. Thanatogenesis and forensic diagnostics of hanging, strangulation by noose and hands. Forensic medical diagnostics of - other types of mechanical asphyxia (from compression of the chest and abdomen, closure of the respiratory tract, in an isolated confined -</p>	<p>GD</p> <p>RG</p> <p>ST</p>	<p>Control questions</p> <p>Case tasks</p>	4

		space). Types of drowning. Pathophysiological changes in the body and morphological signs in different types of drowning. Forensic medical diagnostics. Laboratory methods and evaluation of their results.			
6	Inspection, examination and forensic medical expertise of living individuals	PS.6 Conducting an inspection, examination and forensic medical expertise of living individuals. Causes for examination of living individuals and the issues being solved. The order of procedure. Study methods. Harm to health, its severity and severity - criteria.	GD RG ST	Testing Control questions Case tasks	4
7	Examination of a corpse at the place of its discovery	PS.7 Examination of a corpse at the place of its discovery/ Management and sequence of examination procedure. The rights and duties of a specialist. Specialist's equipment. Examination of a corpse. Pronouncement of death. Supravital reactions and cadaveric changes. Identification and collection of biological traces.	GD RG ST	Testing Control questions Case tasks	4
8	Forensic thanatology Forensic medical examination of a corpse.	PS.8 Forensic medical examination of a corpse. Collection of	GD T CS	Testing Control questions Case tasks	4

		objects for laboratory study, registration of a medical death certificate. Negotiations on the results of the forensic medical examination of a corpse, development of a forensic medical diagnosis and expert conclusions.			
9	Forensic thanatology. Forensic medical examination of a corpse.	PS.9 Forensic medical examination of a corpse. Collection of objects for laboratory study, registration of a medical death certificate. Negotiations on the results of the forensic medical examination of a corpse, development of a forensic medical diagnosis and expert conclusions.	GD T CS	Testing Control questions Case tasks	4
10	Forensic thanatology. Forensic medical examination of a corpse.	PS.10 Forensic medical examination of a corpse. Collection of objects for laboratory study, registration of a medical death certificate. Negotiations on the results of the forensic medical examination of a corpse, development of a forensic medical diagnosis and expert conclusions.	GD T CS	Testing Control questions Case tasks	4
11	Forensic medical expertise in criminal and civil cases related to the professional activities of medical workers	No.11 Forensic medical examination in criminal and civil cases related to the professional activities of	GD RG ST	Testing Control questions Case tasks	4

		medical workers. Federal laws and legal acts - regulating the activities of medical professionals. Defects of - medical care delivery and their classification. Crimes related to the professional - activities of medical professionals and their - specifications. The procedure and features of conducting a forensic medical examination in criminal and civil cases related to the professional activities of medical professionals.			
12		PS.12 Final session		Testing Case tasks	2
TOTAL:					46

Active forms of studying in a practical session:

GD - group discussion

RG - (management) role-playing game

ST - simulation training

T - training

CS - case study

## 5.6. Individual study

Sl.No.	Name of the academic course unit	Types of individual study	Means of actual monitoring	Labor intensity (academic hours)
1	Procedural fundamentals and arrangement of forensic medical expertise in the Russian Federation	Working with lecture material L.1. Working with educational literature, see point 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions	2
2	Forensic medical traumatology. Blunt injuries	Working with lecture material L.3, L.4 Working with educational literature, see point. 8.1. .	Testing Control questions Case tasks	4

		Working with regulatory documents, see p.5.6.1.		
3	Sharp injuries	Working with lecture material L.5 Working with educational literature, see point. 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	2
4	Gunshot injuries	Working with lecture material L.6 Working with educational literature, see point. 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	4
5	Mechanical asphyxia and drowning	Working with lecture material L.7 Working with educational literature, see point. 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	4
6	Injuries caused by chemical and other physical factors	Working with lecture material L.8, L.11 Working with educational literature, see point 8.1. Working with regulatory documents, see point 5.6.1.	Testing	1
7	Inspection, examination and forensic medical expertise of living individuals	Working with lecture material L.9 Working with educational literature, see point. 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	3
8	Forensic medical thanatology	Working with lecture material L.2 Working with educational literature, see point 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	2
9	Examination of a corpse at the place of its discovery	Working with lecture material L.10 Working with educational literature, see point. 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	3
10	Forensic medical examination of a corpse	Working with lecture material L.2 Working with educational literature, see point. 8.1. Working with regulatory documents, see p.5.6.1.	Testing Control questions	3
11	Forensic medical expertise in criminal and civil cases related to the professional activities of medical workers	Working with lecture material L.12 Working with educational literature, see point. 8.1. Working with regulatory documents, see point 5.6.1.	Testing Control questions Case tasks	4
12	Preparation for credit			4



### 5.6.1. List of regulatory documents:

1. The Criminal Procedure Code of the Russian Federation No. 174-FZ dated 22.11.2001.
2. The Civil Procedure code of the Russian Federation No. 138-FZ dated 14.11.2002.
3. The Criminal Code of the Russian Federation dated 24.05.1996 No. 63-FZ.
4. The Civil Code of the Russian Federation. Part 1 No. 51-FZ dated 30.11.1994. Part 2 of No. 14-FZ dated 26.01.1996. Part No. 148-FZ dated 11.26.2001.
5. "On Fundamental Healthcare Principles in the Russian Federation" dated 21.11. 2011. No. 323-FZ.
6. "On State Forensic Activities in the Russian Federation" dated 31.05. 2001, No. 73-FZ.
7. "On Sanitary and Epidemiological Welfare of the Population" dated 30.03.1999 No. 52-FZ.
8. "On Protection of Consumers' Rights" dated 07.02.1992, No. 2300-1 FZ.
9. The procedure for management and process of forensic medical examinations in state forensic expert institutions of the Russian Federation (Approved by Order No. 346N of the Ministry of Health and Social Development of the Russian Federation dated May 12, 2010)
10. Rules for determining the severity of harm caused to human health (Approved by Decree of the Government of the Russian Federation No. 522 dated August 17, 2007)
11. Medical criteria for determining the severity of harm caused to human health (Appendix to Order No. 194N of the Ministry of Health and Social Development of the Russian Federation dated April 24, 2008)

## 6. Guidelines for students on mastering the academic course "Forensic medicine"

FORENSIC MEDICINE is a special medical course that includes a set of knowledge and study methods used to solve medical and biological issues arising during inquiry, preliminary investigation and judicial investigation in criminal and civil cases, as well as to perform tasks to protect the health of citizens.

Forensic medicine is one of the compulsory medical courses in the training of all medical specialists.

Knowledge, skills and competences in forensic medicine are necessary in the professional activity in any medical specialty. In accordance with the Criminal Procedure Code of the Russian Federation, a doctor may be engaged as a specialist to conduct investigative actions - the incident site inspection and examination of a corpse at the place of its discovery (Article 178), examination of a suspect, the accused, a victim, or a witness in order to detect particular signs, traces of a crime, bodily injuries, alcohol intoxication (Article 179), to collect samples from specified individuals for comparative study (Article 202). All doctor's actions must be performed in accordance with the legislation of the Russian Federation.

Doctors in General Medicine are also involved as experts to conduct commission examinations to determine the degree of harm caused to health in criminal and civil cases related to the professional activities of medical workers.

In this regard, each student in the process of studying at the Department of Forensic Medicine should acquire theoretical knowledge, practical skills and competences to the extent necessary for a doctor to perform the tasks of law enforcement agencies and to use them in daily practice.

## 7. Assessment materials

Assessment materials on the course for conducting actual academic performance monitoring and interim assessment include examples of assessment means (Appendix A to the academic course's work program), procedure and criteria.

## **8. The list of necessary educational literature and Internet resources to master the academic course**

### **8.1. Educational literature:**

1. Sudebnaya medicina: Nacional'noe rukovodstvo [Forensic medicine: National guidelines] /ed. by Yu.I.Pigolkin. Moscow: GEOTAR-Media, 2018, 576p.: ill. ELM "Konsul'tant vracha" [Doctor's Consultant] <http://www.rosmedlib.ru/>
2. Romodanovsky P.O., Sudebnaya medicina v skhemah i risunkah [Forensic medicine in diagrams and illustrations] [Electronic resource] / P.O. Romodanovsky, E.Kh. Barinov, Moscow : GEOTAR-Media, 2016. 336 p. ISBN 978-5-9704-3820-6 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970438206.html>
3. Sudebnaya medicina: Kratkij kurs: Uchebnoe posobie [Forensic medicine: Short course: Manual] [Electronic resource] / E.Kh. Barinov [et al.].— Electron. text data.— M.: Peoples' Friendship University of Russia, 2017.— 288 p.— Access mode: <http://www.bibliocomplectator.ru/book/?id=91075>
4. Pashinyan G.A., Sudebnaya medicina v skhemah i risunkah: uchebnoe posobie [Forensic medicine in diagrams and illustrations: manual] [Electronic resource] / Pashinyan G.A., Romodanovsky P.O. - M. : GEOTAR-Media, 2010. - 336 p. - ISBN 978-5-9704-1686-0 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970416860.html>
5. Pigolkin Yu.I., Atlas po sudebnoj medicine [Atlas of forensic medicine] [Electronic resource] / Pigolkin Yu.I., Dubrovin I.A., Gornostaev D., V. et al. Ed. by Yu.I. Pigolkin, Moscow : GEOTAR-Media, 2010. 376 p. ISBN 978-5-9704-1542-9 - Access mode: <http://www.studmedlib.ru/book/ISBN9785970415429.html>
6. Testovye zadaniya k prakticheskim zanyatiyam po sudebnoj medicine [Tests for practical sessions in forensic medicine] / Ed. by Prof. E.S. Mishin. – 10th ed. corr. and add. – St. Petersburg: NWSMU named after I.I. Mechnikov, 2017. – 43 p (MOODL)
7. Pigolkin, Yu. I. Forensic Medicine. Textbook / Yu. I. Pigolkin, I. A. Dubrovin. - Moscow : GEOTAR-Media, 2023. - 472 p. - ISBN 978-5-9704-7087-9. - Text : electronic // ELS "Student's consultant" : [website]. - URL : <https://www.studentlibrary.ru/book/ISBN9785970470879.html>
8. Sudebnaya medicina : uchebnik [Forensic medicine: student's book] / ed. by Yu. I. Pigolkin. - 4th ed. , revised and add. - Moscow : GEOTAR-Media, 2022. - 592 p. - ISBN 978-5-9704-6313-0. - Text : electronic // ELS "Student's consultant" : [website]. - URL: <https://www.studentlibrary.ru/book/ISBN9785970463130.html>

### **8.2. Resources of the information and telecommunications network "Internet":**

Names of the Internet resource	Web address
Journals of the "MediaSfera" [Mediasphere] publishing house, including the journal "Sudebno-medicinskaya ekspertiza" [Forensic-medical examination]	- <a href="http://www.mediasphera.ru">www.mediasphera.ru</a> , <a href="https://www.mediasphera.ru/journal/sudebno-meditsinskaya-ekspertiza">https://www.mediasphera.ru/journal/sudebno-meditsinskaya-ekspertiza</a>
«Medline»	<a href="http://www.ncbi.nlm.nih.gov">www.ncbi.nlm.nih.gov</a> . and <a href="https://www.ncbi.nlm.nih.gov/pubmed">https://www.ncbi.nlm.nih.gov/pubmed</a>
The National Library of Russia	<a href="http://www.nlr.ru">www.nlr.ru</a>
LIBNET National Information and Library Center	<a href="http://www.nilc.ru">www.nilc.ru</a>

Information and reference portal. The project of the Russian State Library for Youth	<a href="http://www.library.ru">www.library.ru</a>
The Russian State Library	<a href="https://www.rsl.ru/">https://www.rsl.ru/</a>
CyberLeninka — scientific electronic library	<a href="https://cyberleninka.ru">https://cyberleninka.ru</a>
Forensic medicine, expertise and thanatology	<a href="http://sudebnaja.ru/">http://sudebnaja.ru/</a>
Forum of forensic experts	<a href="http://www.sudmed.ru">www.sudmed.ru</a>
Students' community, lectures on forensic medicine	<a href="http://vmede.org">vmede.org</a>
Community of Russian-speaking forensic medical experts.	<a href="http://www.forens-med.ru/">http://www.forens-med.ru/</a>
Scientific and practical journal "Sudebnaya medicina" [Forensic Medicine].	<a href="http://www.for-medex.ru/jour/issue/archive">http://www.for-medex.ru/jour/issue/archive</a>

## 9. The list of information technologies used to master the academic course, including a list of software, professional databases and information reference systems

### 9.1. The list of information technologies used in the implementation of the educational process:

Sl.No.	Name of the academic course unit	Information technology
1	Procedural fundamentals and arrangement of forensic medical expertise in the Russian Federation	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
2	Forensic medical traumatology. Blunt injuries	Knowledge control - Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
3	Sharp injuries	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
4	Gunshot injuries	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
5	Mechanical asphyxia and drowning	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
6	Injuries caused by chemical and other physical factors	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
7	Inspection, examination and forensic medical expertise of living	Placement of educational materials in the EIE

	individuals	of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
8	Forensic medical thanatology	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
9	Examination of a corpse at the place of its discovery	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
10	Forensic medical examination of a corpse	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>
11	Forensic medical expertise in criminal and civil cases related to the professional activities of medical workers	Placement of educational materials in the EIE of the FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation, <a href="https://moodle.szgmu.ru/course/view.php?id=99">https://moodle.szgmu.ru/course/view.php?id=99</a>

**9.2. The list of software used in the educational process (*licensed and freely distributed software, including domestically produced*):**

Sl.No.	Name of the software product	License validity period	Documents supporting the right to use software products
licensed software			
1.	ESET NOD 32	1 year	Public contract № 07/2020
2.	MS Windows 8 MS Windows 8.1 MS Windows 10 MS Windows Server 2012 Datacenter - 2 Proc MS Windows Server 2012 R2 Datacenter - 2 Proc MS Windows Server 2016 Datacenter Core	Unlimited	Public contract № 30/2013-O; Public contract № 399/2013-OA; Public contract № 07/2017-ЭА.
3.	MS Office 2010 MS Office 2013	Unlimited	Public contract № 30/2013-OA; Public contract № 399/2013-OA.
4.	Academic LabVIEW Premium Suite (1 User)	Unlimited	Public contract № 02/2015
licensed software of domestic production			

1.	Antiplagiat	1 year	Public contract № 2409
2.	"WEBINAR (VEBINAR)" VERSION 3.0	1 year	Contract № 347/2020-M
3.	"3KL Learning management system"	1 year	Contract № 348/2020-M
4.	TrueConf Enterprise	1 year	Contract № 396/2020-ЭА
freely distributed software			
1.	Google Chrome	Unlimited	Open License Agreement GNU GeneralPublicLicense
2.	NVDA	Unlimited	Open License Agreement GNU GeneralPublicLicense
freely distributed software of domestic production			
1.	Moodle	Unlimited	Open License Agreement GNU GeneralPublicLicense

### 9.3. List of professional databases and information reference systems:

Sl.No	Name of the software product	License validity period	Documents supporting the right to use software products	Access mode for students with disabilities
1.	Konsul'tant Plyus [Consultant Plus]	1 year	Contract № 655/2020-ЭА	-
2.	ELS "Student's Consultant"	1 year	Contract № 307/2020-ЭА	<a href="http://www.studmedlib.ru/">http://www.studmedlib.ru/</a>
3.	EML "Konsul'tant vracha" [Doctor's Consultant]	1 year	Contract № 281/2020-ЭА	<a href="http://www.rosmedlib.ru/">http://www.rosmedlib.ru/</a>
4.	ELS "ibooks.ru"	1 year	Contract № 06/2020	<a href="https://ibooks.ru">https://ibooks.ru</a>
5.	ELS "IPRbooks"	1 year	Contract № 08/2020-3K	<a href="http://www.iprbookshop.ru/special">http://www.iprbookshop.ru/ special</a>
6.	Electronic Library System "BuckUP"	1 year	Contract № 05/2020	<a href="https://www.books-up.ru/">https://www.books-up.ru/</a>
7.	ELS "Izdatel'stvo Lan" [Fallow deer Publishing House]	1 year	Contract № 395/2020-ЭА	<a href="https://e.lanbook.com/">https://e.lanbook.com/</a>

## 10. Logistical and technical support of the course

Classrooms for conducting training sessions, group and individual consultations, actual monitoring of academic performance and interim assessment of students, St. Petersburg, Piskarevsky Prospekt, 47, lit AL (building 26), FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation.

Equipment: chalkboard; teacher's desk, teacher's chair, student desks, student chairs.

Technical educational medium: multimedia projector, teacher's laptop, system unit, monitor.

Special educational medium tools: Roger Pen (Individual Roger wireless pen-shaped transmitter), Roger MyLink (Roger Pen system signal receiver) (for students with hearing impairments); IntelliKeys (wired keyboard with matte black coating Russian Braille script), (St. Petersburg, Piskarevsky Prospekt, 47, lit. R (building 9), classroom 18, 19, FSBEI HE

NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation).

Classrooms with equipment and technical educational medium tools for practical sessions, group and individual consultations, actual academic performance monitoring and interim assessment of students: St. Petersburg, Piskarevsky Prospekt, 47, lit AL (building 26), FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation.

- classroom 1

Equipment: teacher's desk, student four-person desks, chairs, thematic tables, poster stands, pictures, dry and wet simulation facilities, traumatic objects, physical evidence, educational films.

Technical educational medium tools: multimedia, audio and video equipment, TV, DVD.

- classroom 2

Equipment: teacher's desk, student double desks, chairs, thematic tables, poster stands, pictures, dry and wet simulation facilities, traumatic objects, physical evidence, simulation models: spatial models of incident sites, educational films.

Technical educational medium tools: multimedia, audio and video equipment, TV, DVD.

- classroom 3 – Center of Thanatology, library of the department.

Equipment: student double desks, double benches, cabinets

Technical educational medium tools: system unit, monitor.

- classroom 4

Equipment: teacher's desk, student double desks, chairs, thematic tables, poster stands, pictures, dry and wet simulation facilities, traumatic objects, physical evidence, simulation models: spatial models of incident sites, educational films.

Technical educational medium tools: multimedia, audio and video equipment, TV, DVD.

Saint Petersburg, Yekaterininsky Prospekt, 10, St. Petersburg SHI "OCME" ; contract № 798/2021-OIII dated 18.05.2021.

5 – autopsy room

Equipment: two autopsy tables, measuring scales, dissecting kits, tools for taking objects, scales, height meter.

Rooms for individual study of students, equipped with computer hardware connected to the Internet and provided with access to the electronic information and educational environment of the University: St. Petersburg, Piskarevsky Prospekt, 47, lit. AE (building 32), classroom 1, lit. R (building 9), classroom 18, 19, FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the Russian Federation.

The Ministry of Health of the Russian Federation

**Federal State Budgetary Educational Institution  
of Higher Education  
"North-Western State Medical University  
named after I.I. Mechnikov"  
under the Ministry of Health of the Russian Federation**

(FSBEI HE NWSMU named after I.I. Mechnikov under the Ministry of Health of the  
Russian Federation)

**ASSESSMENT MATERIALS**

(for the actual monitoring of academic performance and interim assessment of students)

<b>Major:</b>	31.05.01 General Medicine
<b>Focus:</b>	Arrangement and delivery of primary health care to the adult population in medical organizations
<b>Name of the academic course:</b>	"Forensic medicine"

## 1. List of planned study outcomes of the academic course

Competency achievement indicator code	Study outcomes (assessment criteria)	Assessment means
AI-1 GPC-5.1.	<p><b>Student knows:</b> the criminal procedure legislation on the examination of living individuals, the purposes of examination, rights and obligations of a doctor involved in the examination, the requirements for the examination report registration; injury types caused by physical and chemical impacts, the mechanism and prescription of their formation, methods of their study and registration; collection methods for biological objects in examination process;</p> <p>Criminal procedure legislation on the examination of a corpse at the place of its discovery, the purposes of examination, rights and duties of a doctor involved in the examination of a corpse at the place of its discovery, the purposes of examination, the main tools and means necessary to examine a corpse and collect traces of biological origin, signs of biological death, cadaveric changes and supravital reactions, study methods and their informative significance, injury types caused by physical and chemical factors, the mechanism and prescription of their formation, methods of their investigation and registration, traces of biological origin, methods of their detection, collection and referral to laboratory testing, methods of recording the results of incident site inspection, features of examining a corpse at the place of its discovery under various types and circumstances of occurrence death, the main issues solved by the forensic medical examination</p>	Control questions Tests Case tasks
	<p><b>Student is able to:</b> assist the investigator in conducting an examination of suspects, the accused, victims and witnesses; establish the presence, nature, and morphological features of injuries; record (describe) them in the examination report; collect traces and objects of biological origin on the investigator's instructions.</p> <p><b>Student is able to:</b> assist the investigator in examining a corpse at the place of its discovery, identifying and registering traces of biological origin; pronounce biological death, examine clothing and corpse, examine cadaveric changes, conduct supravital reactions; identify and describe injury caused by physical and chemical factors; identify and collect traces of biological origin</p>	



	(blood, semen, etc.); describe corpse examination results in the protocol of the incident site inspection; approximately determine the prescription of death coming, type of injuries and traumatic objects; help the investigator to state questions for making a decision on the appointment of a medical forensic examination	
AI-2 GPC-5.2.	<b>Student knows:</b> the structural and functional foundations of pathological processes, the causes, the main mechanisms of development and outcomes of pathological processes, disorders in functioning of organs and systems, the modern classification of diseases, the patterns of diagnosis in various diseases, and injuries that caused death.	Control questions Tests Case tasks
	<b>Student is able to:</b> visually evaluate changes in the organs and tissues of a corpse, substantiate the nature of the pathological process, register a certification on the cause of death, state a pathoanatomical (forensic) diagnosis; describe morphological changes in the macroscopic objects under study; consider the issues of general pathology and modern theoretical concepts and trends in medicine	
	<b>Student has the skill of:</b> identification and interpretation the following indicators: morphological changes and the results of laboratory study methods	
AI-3 GPC-5.3	<b>Student knows:</b> specifications and biophysical mechanisms of physical and chemical impacts on the body, the concepts of pathogenesis and morphogenesis of a disease (pathological condition), injury types caused by physical and chemical factors, mechanism and prescription of their formation, methods of their study and registration; methods of collecting biological objects during examination, principles of diagnosis, basic laboratory methods used in the forensic medical examination process and their informative value	Control questions Tests Case tasks
	<b>Student is able to:</b> describe morphological changes in the macroscopic objects under study, consider the issues of general pathology and modern theoretical concepts and trends in medicine	
	<b>Student has the skill of:</b> determining the main indicators of physical development and functional status, such as morphological changes and the results of additional study methods, taking into account anatomical and physiological features.	

## 2. Examples of assessment means and criteria of actual monitoring

### 2.1. Examples of input control

1. Abrasions, the mechanism of their formation.
2. Bruises, the mechanism of their formation.
3. Injuries caused by the action of various objects, their types.
4. Fractures of flat and tubular bones, their types, mechanisms of formation.
5. Traumatic brain injury. Classification of brain and meninges damages.
6. Dying and death. Changes in the body that occur during the dying process. Concepts and specifications of clinical and biological death, brain death.
7. The concepts of "rapid" and "sudden" death. Causes of rapid death of children and adults. Forensic medical diagnostics. Laboratory study methods.

Assessment criteria, assessment scale of *control questions*:

Grade	Description
"passed"	Student knows all the required educational material, understands it well and has firmly mastered it. Questions (within the program) are answered without difficulty. Student uses standard language in verbal answers and does not make mistakes
"fail"	Student does not know most of the educational material, has a tend to uncertainly answer merely teacher's guiding questions. Student makes frequent and gross mistakes in verbal answers

### 2.2. Examples of tests:

#### AI-1 GPC-5.1.

##### Question title: Question № 1

According to the scope of study, expertise can be:

- 1) general
- 2) homogeneous
- 3) additional
- 4) combined

#### AI-2 GPC-5.2.

##### Question title: Question № 2

When conducting an examination, a forensic medical expert may:

- 1) **get acquainted with the case files**
- 2) **apply for additional materials to be provided**
- 3) **participate in the procedural actions**
- 4) collect information from the relatives of the deceased about the nature of the incident
- 5) withdraw medical documents of the deceased from relatives

#### AI-3 GPC-5.3

##### Question title: Question № 3

A forensic medical expert is criminally responsible for:

- 1) **knowingly false conclusion**
- 2) refusal to give a conclusion
- 3) **disclosure of preliminary investigation data**
- 4) evading their duties

Assessment criteria, the scale of *test assessment*

Grade		Description
"passed with distinction"	5	Completed in full – 90%-100%
"passed with credit"	4	Completed not in full – 80%-89%
"passed"	3	Completed with contravention – 70%-79%
"failed"	2	Partially completed – 69% or less correct answers

### 2.3. Examples of strategy for solving case tasks

#### AI-1 GPC-5.1.

##### Task № 1

A male corpse was found at home lying on the kitchen floor. During examination of the corpse, it was found in the left cubital fossa (examine and describe the gross specimen). In the depth of the wound, 2/3 of the radial artery is dissected. The internal organs and tissues are anemic.

State a reasoned answer to the questions:

1. What injuries were found on the corpse and what is the mechanism of their formation?
2. What is the cause of death?
3. What object caused the identified injuries?
4. What is the action direction of this item?

*Object study and description:*

There is a 5x1 cm fusiform wound in the left cubital fossa. When the wound edges are brought together, the wound becomes a linear 5.3 cm long. The edges of the wound are smooth, the ends are sharply angled. At the left end of the wound there is an incision of the epidermis 0.5 cm long. The wound is 1 cm deep, and severed vessels and muscles are detected at the bottom of the wound.

*Forensic medical diagnosis.*

Primary: Incised wound of the anterior left cubital fossa with lesion of the left radial artery.

Complication: Acute blood loss: anemia of organs and tissues.

*Conclusions.*

1. Examination of the corpse revealed an incised wound in the left cubital fossa with lesion of the left radial artery.
2. The cause of death was a laceration to the left cubital fossa with lesion of the left radial artery, accompanied by acute blood loss.
3. The wound in the left cubital fossa evolved by the action of a sharp cutting object, as indicated by the fusiform shape of the wound, its smooth edges, sharp-angled ends with an incision in the epidermis, and the predominant wound length over its width and depth.
4. 2. The wound evolved by a single movement of the cutting object in the direction from right to left, as evidenced by the uneven depth of the wound – deeper at the beginning and the presence of a superficial incision of the epidermis at the left end of the wound.

#### AI-2 GPC-5.2.

##### TASK № 2

Mr. D., 20 years old, got stabbed in the abdomen in a fight on July 25. He was taken by ambulance to the hospital surgical department. A stab wound to the abdomen was found. A laparotomy was performed. Examination of the abdominal cavity revealed lesion of the liver right lobe 1.5x0.3 cm in size and 3 cm deep. 900 ml of blood accumulated in the abdominal cavity. Stitches were applied to the liver injury and omentum. Postoperative course was without complications. He started working in 25 days after the injury.

### *Conclusions:*

1. Mr. D. was found to have the following injuries: a penetrating stab wound to the abdomen with liver lesion, accompanied by acute blood loss.
2. These injuries and conditions are classified as grievous bodily harm according to indications of dangerous to human life harm.

### **AI-3 GPC-5.3**

#### **TASK № 3**

A female corpse was found with a noose around her neck. The corpse is wearing a dress, a chemise, and a bra. The indoor air temperature is +18°C. At 22:30, cadaverous spots of the back surface of the body disappear under pressing with a dynamometer and regain color in 10 seconds. Rigor mortis is well expressed in the masticatory muscles, weakly expressed in the muscles of the upper extremities, and absent in the muscles of the lower extremities.

Electric irritation with inserting electrodes into the muscles at the lateral canthi caused a sharp contraction of the eyelids and a distinct contraction of the all facial muscles. The pupil immediately dilated after injection of 0.1 ml of 1% atropine solution into the anterior chamber of the right eye. The pupil narrowed after injection of 0.1 ml of 1% pilocarpine solution into the anterior chamber of the left eye. A hit to the biceps muscle with the knife back caused the formation of an idiomuscular swelling. The face and hands are cold to the touch. The rectal temperature of the corpse is +32.0 °C, after an hour +31.1 °C. The cause of death was strangulation with a noose.

*Give a reasoned answer to the question:*

1. What is the death prescription?

### *Conclusions.*

Time of death is supposed to be from 4 to 6 hours before examination, basing on the assessment of cadaveric changes (cadaveric spots in the hypostasis stage, disappearing when pressed with a dynamometer and restoring color in 10 seconds, rigor mortis well expressed in the masticatory muscles, weakly in the muscles of the upper extremities and absent in other muscle groups, cooling of exposed body parts, reduction of rectal temperature to +32.0 °C, after an hour up to +31.1 °C, severity of supravital reactions to mechanical, electrical and chemical irritation).

### Assessment criteria, assessment scale of *case tasks*

<b>Grade</b>		<b>Description</b>
"passed with distinction"	5	Case solving is detailed, consistent, competent, with theoretical justifications, with necessary schematic images and visual presentations, with correct and fluent command of terminology; the answers to additional questions are correct, clear
"passed with credit"	4	Case solving is detailed, but not logical enough, with occasional particular errors, some difficulties in theoretical justification, schematic images and visual presentations, the answers to additional questions are correct, but not clear enough
"passed"	3	Case solving is not complete enough, inconsistent, with errors, weak theoretical justification, with significant difficulties and errors in schematic representations and visual presentations, the answers to additional questions are not clear enough, with errors in details
"failed"	2	Case solving is incomplete, inconsistent, with gross errors, without theoretical justification, without schematic images and visual presentations, or with a large number of errors,

		the answers to additional questions are incorrect or missing
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## 2. Examples of control questions

### AI-1 GPC-5.1.

1. The concepts of "expert" (Article 57 of the Criminal Procedure Code of the Russian Federation), "forensic medical expert" and "specialist" (Article 58 of the Criminal Procedure Code of the Russian Federation). Duties and rights of an expert and specialist. The legal responsibility of an expert for violating professional duties.

### AI-2 GPC-5.2.

2. Entry and exit bullet gunshot wounds. Mechanisms of their formation, signs and study methods.

### AI-3 GPC-5.3

3. Bruises, the mechanism of their formation. Examination of bruises and solution of expert issues.

Assessment criteria, assessment scale *for control questions*

Grade		Description
"passed with distinction"	5	Student knows all the educational material, understands it perfectly and has firmly mastered it. Student gives correct, conscious and confident answers to questions (within the program). Student uses correct standard language and does not make mistakes in verbal answers
"passed with credit"	4	Student knows all the required educational material, understands it well and has firmly mastered it. Questions (within the program) are answered without difficulty. Student uses standard language in verbal answers and does not make mistakes
"passed"	3	Student knows the core educational material. Student answers questions (within the program) uneasily. Student makes mistakes in the presentation of the material and in the construction of speech during verbal answers
"failed"	2	Student does not know most of the educational material, has a tend to uncertainly answer merely teacher's guiding questions. Student makes frequent and gross mistakes in verbal answers

## 3. The procedure of conducting actual monitoring

The actual monitoring of academic performance in the course is carried out by means of testing, interviews and solving case tasks

## 4. Examples of assessment means and criteria of interim assessment

### 4.1. Approximate list of control questions

AI-1 GPC-5.1, AI-2 GPC-5.2, AI-2 GPC-5.3.

1. The concepts of "expert" (Article 57 of the Criminal Procedure Code of the Russian Federation), "forensic medical expert" and "specialist" (Article 58 of the Criminal Procedure Code of the Russian Federation). Duties and rights of an expert and specialist. The legal responsibility of an expert for violating professional duties.

2. The participation of a forensic medical expert and a doctor as a specialist in investigative actions (examination of a corpse, exhumation, inspection, investigative experiment, collection of samples for comparative study), their rights and obligations.
3. Involvement of a doctor to participate in the examination of a suspect, victim, witness, the accused (Article 179 of the Criminal Procedure Code of the Russian Federation) and collection of samples for comparative study (Article 202 of the Criminal Procedure Code of the Russian Federation).
4. Abrasions, the mechanisms of their formation. Examination of abrasions and solution of expert issues.
5. Traumatic brain injury caused by blunt objects. Classification of brain and meninges damages.
6. Classification of sharp objects. The mechanisms of their action. Specifications of sharp injuries.
7. Entry and exit bullet gunshot wounds. Mechanisms of their formation, signs and study methods.
8. The hanging. Forensic medical diagnostics, solving expert issues.
9. Death from general exposure to cold of the body. Factors contributing to the death coming. Morphological features.
10. The statement of death in a medical institution and at the incident site.
11. Rigor mortis, mechanisms and timing of its development. The informative value of rigor mortis for solving expert issues.
12. The concepts of "health" and "harm to health". The degrees of harm caused to human health and their qualifying signs according to the Criminal Code of the Russian Federation.
13. The sequence of the corpse examination at the place of its discovery
14. Management and process of forensic medical expertise in criminal and civil cases related to the professional activities of medical workers.

#### Assessment criteria, assessment scale for control questions

Grade		Description
"passed with distinction"	5	Student knows all the educational material, understands it perfectly and has firmly mastered it. Student gives correct, conscious and confident answers to questions (within the program). Student uses correct standard language and does not make mistakes in verbal answers
"passed with credit"	4	Student knows all the required educational material, understands it well and has firmly mastered it. Questions (within the program) are answered without difficulty. Student uses standard language in verbal answers and does not make mistakes
"passed"	3	Student knows the core educational material. Student answers questions (within the program) uneasily. Student makes mistakes in the presentation of the material and in the construction of speech during verbal answers
"failed"	2	Student does not know most of the educational material, has a tend to uncertainly answer merely teacher's guiding questions. Student makes frequent and gross mistakes in verbal answers

## 4.2. Examples of case tasks:

### AI-1 GPC-5.1.

#### Task № 1

1. Study the task content.
2. Examine and describe the gross specimen.
3. State a forensic medical diagnosis.

4. Give reasonable answers to the questions:

- 1) What injuries were found during the corpse examination?
- 2) What object caused the detected injuries?
- 3) What is the cause of death?

The corpse of Mr. Z., 34 years old, was found in the apartment at his place of residence. The corpse was in a chair, in a sitting position. An open straight razor with dried bloodstains on it lay on the floor next to the chair.

A forensic examination revealed a white cotton T-shirt with multiple vertical bloodstains on the front side. The skin is pale. There is a large number of dried blood streaks on the neck, upper half of the front side of the chest and on the arms. The corpse is cold to the touch, the cadaverous spots on the back side of the corpse are faintly expressed, pale purple in color. In the anterior region of the upper neck, to the left of the median line ... (describe the specimen). Examination of the neck organs revealed: incision of the left submandibular salivary gland, complete intersection of the left external carotid artery. The organs and tissues of the corpse are anemic.

Additionally substantiate the possibility of forced or self-dependent injury infliction, a forensic assessment of the determined concentration

### AI-2 GPC-5.2.

Task № 2

1. Study the task content.
2. Consider and evaluate the informative signs to determine the prescription of death.
3. Give a reasonable answer to the question: "What is the prescription of death?"

The male corpse was found on the floor of the apartment. The corpse was wearing: a cotton jacket, a shirt, a sleeveless T-shirt, trousers, underpants, socks, shoes. The air temperature in the room is +18.5 °C. Cadaverous spots on the back of the body do not disappear or fade under pressing with a dynamometer. Rigor mortis is absent in the facial muscles, weakly expressed in the muscles of the upper and lower extremities. Electric irritation by inserting of electrodes to the lateral canthi of the eyes did not cause muscle contraction. The pupil diameter did not change with injection of 0.1 ml of 1% atropine solution into the anterior chamber of the eye. The idiomuscular swelling did not form after hitting the biceps muscle with the knife back. The skin is pale and cold to the touch. The skin of the iliac region is dirty greenish in color. The corpse's rectal temperature is +18.5 °C. Cause of death: closed blunt trauma to the head, brain contusion, subdural hematoma, swelling and compression of the brain.

### AI-3 GPC-5.3

Task № 3

1. Study the task content.
2. Give reasonable answers to the questions:
  - a) Has the Mr.P been injured and has he suffered any harm to his health?

It follows from the order on the assignment of a forensic medical examination that on 01.01.2017 at about 05:00, Mr. P., 29 years old, was punched in the face, and his tooth was knocked out. He did not seek medical help. Examination by an expert on 03.01.2017: There is no lesions to the lips and gums. The crown part of the first tooth on the upper jaw left side is missing, the root of this tooth is markedly carious, traces of filling material are visible in its cavity, the edges of the defect in the hard tissues of the tooth are smoothed.

Assessment criteria, assessment scale of *case tasks*

Grade		Description
"passed with distinction"	5	Case solving is detailed, consistent, competent, with theoretical justifications, with necessary schematic images

		and visual presentations, with correct and fluent command of terminology; the answers to additional questions are correct, clear
"passed with credit"	4	Case solving is detailed, but not logical enough, with occasional particular errors, some difficulties in theoretical justification, schematic images and visual presentations, the answers to additional questions are correct, but not clear enough
"passed"	3	Case solving is not complete enough, inconsistent, with errors, weak theoretical justification, with significant difficulties and errors in schematic representations and visual presentations, the answers to additional questions are not clear enough, with errors in details
"failed"	2	Case solving is incomplete, inconsistent, with gross errors, without theoretical justification, without schematic images and visual presentations, or with a large number of errors, the answers to additional questions are incorrect or missing

Assessment criteria, assessment scale passed/not passed

Grade	Description
"passed"	Student performs a complete understanding of the issue. Student knows the basic concepts within the discussed issue, the methods of study and their interrelation, practical problems and has an idea of the developmental promising directions of the issue under consideration
"not passed"	Student performs a lack of understanding of the issue. Student does not know the basic concepts and methods of study, and has no idea about the main practical problems within the discussed issue

## 5. The procedure of interim assessment

Interim assessment in the course is conducted by credit. Credit includes: control questions and solving a case task.