**MINISTRY OF HEALTH OF UKRAINE**

**KHARKIV NATIONAL MEDICAL UNIVERSITY**

Department of Forensic Medicine, Medical Law

named after Honored Professor M.S. Bokarius

 **APPROVED**

 Vice-Rector

 Associate Professor I. Leschina

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“\_\_\_\_\_\_” \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2020

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# **SYLLABUS**

OF ACADEMIC DISCIPLINE

**"MODERN ASPECTS OF FORENSIC MEDICAL TRAUMATOLOGY"**

**(elective course)**

**Field of knowledge: 22 "Healthcare"**

**Specialty: 222 "Medicine"**

**Educational program of training**

**on second (master's) level of higher education**

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| Approved at the meeting of the Department of Forensic Medicine, Medical Law named after Honored Professor M.S. BokariusProtocol at       “02”   September 2020 №  11 Head of the Department\_\_\_\_\_\_\_\_\_\_\_\_\_\_     prof. О. Dunaev           (signature) (surname and initials)                     " 03 "   September 2020  |  | Approved by the methodical commissionof surgical profile problems:  Protocol at “\_\_\_” \_\_\_\_\_\_\_\_\_\_\_\_ 2020 № \_\_\_Head of the Commission\_\_\_\_\_\_\_\_\_\_\_\_\_\_        prof. V.Sipliviy                              (signature)   (surname and initials)“\_\_\_” \_\_\_\_\_\_\_\_\_\_\_\_ 2020  |  |

**"MODERN ASPECTS OF FORENSIC MEDICAL TRAUMATOLOGY"**

**(elective course)**

Syllabus’s authors:

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named after Honored Professor M.S. Bokarius, MD, PhD, Doctor of Medical Sciences, Professor

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Sokol V. - Associate Professor of the Department of Forensic Medicine, Medical Law

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Leontiev P. - Associate Professor of the Department of Forensic Medicine, Medical Law

named after Honored Professor M.S. Bokarius, MD, PhD

|  |  |
| --- | --- |
| Information about the teacher | Leontiev Pavlo Oleksandrovich |
| Information about the teacher | Professional interests: forensic medicine, jurisprudenceTeacher profile :http://31.128.79.157:8083/user/profile.php?id=562 |
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| Information about the consultations:off-line consultationsschedule : venue :   on-line consultations  |    every monday from 15.00 to 17.00 Kharkiv,  Trinklera street 6, Department of Forensic Medicine, Medical Law named after Honored Professor M.S. Bokarius (3rd floor) by prior arrangement ,<http://31.128.79.157:8083/mod/bigbluebuttonbn/view.php?id=37924> |
| Location | Trinklera street 6https://goo.gl/maps/v6bFs5yZonFD77zcA |

**Information about the Discipline**

**1. Description of the discipline**

 Course - V

 Current semester / academic year – autumn or spring / 2020-2021

 Amount - 3.0 ECTS credits (90 hours), including: lectures - 10 hours, practical classes - 10 hours, independent work - 70 hours.

 General information:

 The elective course "Modern aspects of forensic medical traumatology" includes information on the main theoretical and methodological issues of forensic traumatology. The knowledge and skills in forensic medicine are a prerequisite for understanding the processes of professional health care. Traumatology is the study of injuries, their diagnosis, treatment and prevention. The great importance of injuries for human health and life, the extraordinary diversity of nature, location, course of injuries, the conditions of their occurrence, determine the fact that traumatology is studied not only by traumatology doctors who have devoted themselves to studying this problem, but also by a number of other medical professionals: neurosurgeons, ophthalmologists, dentists, laryngologists, etc. Forensic experts are also studying the injury. But aspects of the study of injuries by clinicians and forensic doctors are different and this difference is due primarily to the characteristics of the goals and objectives facing clinicians and forensic experts. The tasks of the clinician include: diagnosis, selection of the most rational method of treatment and its implementation, so that there are as few harmful effects of injury; study of injuries and development of measures for its prevention. The tasks of the forensic expert are different. He must: establish the presence of damage; determine the extent and nature of the damage, the degree of its damage to health and consequences; establish which environmental factor caused the damage; to resolve the issue of the mechanism of damage; to find out whether there is a causal link (direct or indirect) between the influence of an external factor and t health disorder or death of the victim.

 **2. The purpose and tasks of the discipline:**

 *The purpose* of studying the discipline the discipline "Modern aspects of forensic medical traumatology" is to provide the future doctor with the necessary amount of theoretical knowledge in the field of traumatic injuries, their age and mechanism of formation, which will ultimately help establish a correct diagnosis in clinical practice and help law enforcement agencies. disclosure of crimes against the person.

 *The tasks* of studying of studying the discipline are to obtain knowledge, skills, abilities differential diagnosis of traumatic injuries in forensic practice, description of different types of injuries, addressing the mechanism of culpability and prescription of damage to skin, bones, internal organs, the use of laboratory methods in these cases, forensic autopsies in cases of violent death , determining the severity of injuries in living persons, etc.

 **3. The status of the discipline – elective.**

 The format of the discipline is combined, which contents the traditional forms of classroom learning with elements of on-line learning, using computer graphics, audio and video, interactive elements, online consulting, using the platforms Moodle, Zoom, Google Meet.

 **4. Teaching methods:**

 1. Verbal methods - lecture, conversation (consulting, questioning).

 2. Visual methods - video presentation, Power Point presentation, illustration, table, describing of native preparation, demonstration of autopsy.

 3. Practical methods - work in groups, work in pairs, test tasks, situational tasks, case method, independent work, brainstorming, clinical methods, asking of a patients.

 **5. Recommended literature:**

 1. Forensic medicine: textbook / B.V. Mychailychenko, A.M. Biliakov, I.G. Savka; edited by B.V. Mychailichenko. – Kyiv: AUS Medicine Publishing, 2017. – 224 p.

 2. Forensic Pathology and Childe Death / Mary E. Case, Elizabeth M. Kermgard. - STM Learning, 2001. – 350 p.

 3. Forensic Medicine by J. Magendran. - CBS Publishers, 2020. – 280 p.

 4. Principles and Practice of Forensic Medicine Synopsis by B. Umadethan. - CBS Publishers, 2015. – 800 p.

 5. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology for Classrooms and Courtrooms Synopsis by B.V. Subrahmanyam/ - CBS Publishers, 2016. – 776 p.

 6. Forensic Toxicology Synopsis by V. Ambade. - CBS Publishers, 2018. – 208 p.

 7. Forensic and Clinical Forensic Autopsy by Cristoforo Pomara. - CRC Press an imprint of Taylor & Francis Ltd, 2020. – 210 p.

 8. Forensic Medicine Solved Question Papers by Singi Yatiraj. - Jaypee Brothers Medical Publishers, 2019. – 362 p.

 9. Parikh's Color Atlas of Medicolegal Postmortems and Forensic Pathology by O.P. Murty. - CBS Publishers & Distributors, 2019. – 568 p.

 10. Practical Forensic Medicine and Toxicology by K.K. Banerjee. - CBS Publishers & Distributors, 2019. – 160 p.

 **6. Prerequisites and co-requisites of the discipline**

 This discipline must be preceded by the studying of the following disciplines - normal and pathological anatomy, normal and pathological physiology, forensic medicine, traumatology, radiology, anesthesiology, surgery.

 **7. Learning results**

 As a result of studying the discipline, the higher education applicants must:

 **Know:**

1) regulatory and legal support of forensic medical activities;

2) organization of forensic medical examination in Ukraine;

3) types of injuries and causes of their occurrence;

4) features of traumatic injuries from the action of blunt objects;

5) features of traumatic injuries from the action of sharp objects;

6) features of gunshot and explosive injuries;

7) features of transport injuries;

8) features of injury from falling from a height;

9) signs of the severity of injuries;

10) types of violent death and features of autopsy in these cases;

11) features of the scene inspection in case of violent death;

12) capabilities of the forensic laboratory in cases of traumatic injuries;

13) features of examination of clothes in cases of traumatic injuries;

14) features of research of tools of an injury;

15) features of withdrawal of material evidence from the scene.

 **Be able to**:

 1) determine the type and severity of injuries;

2) describe the injuries;

3) determine the type of injury weapon;

4) to establish the viability of traumatic injuries and the age of their occurrence;

5) set the distance and direction of the shot;

6) establish the epicenter of the explosion and the distance of the explosion;

7) determine the type and mechanism of traffic injury;

8) find, describe and remove material evidence from the scene;

9) determine the cause of violent death;

10) formulate issues that can be resolved during the forensic examination of the corpse;

11) examine the victim for bodily injuries;

12) determine the percentage of loss of general capacity for work due to injury;

13) photograph the damage;

14) draw up schemes in cases of multiple injuries;

15) find and describe the damage to the victim's clothes and shoes.

**The content of the Discipline**

|  |  |
| --- | --- |
|  Names of topics of the discipline | Number of hours |
| Full-time form of study |
| Total | Including |
| Lecture | Pract | Lab | Ind | Indep/ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Topic 1. Forensic examination of the corpses of persons who died as a result of exposure to various vehicles. Forensic medical examination of the corpses of people who died as a result of a car crashing into a pedestrian | 10 | 2 | 1 | **–** | **–** | 7 |
| Topic 2. Forensic examination of the corpses of people who died as a result of injuries inside the cab. Forensic medical examination of corpses of persons who died from moving the wheels of a car Methodology of extraction of biological material for additional research in the examination of corpses of persons who died as a result of car injuries | 8 | – | 1 | **–** | **–** | 7 |
| Topic 3. Forensic medical examination of corpses of persons who died during other types of car injuries (falling out of the car body, pressing the car to a stationary obstacle, combined types of car injuries).Forensic examination of the corpses of persons who died in cases of motorcycle injuriesForensic examination of the corpses of persons who died as a result of a railway injury | 10 | 2 | 1 | **–** | **–** | 7 |
| Topic 4. Methods of examination of corpses of persons who died in a plane crash. Forensic examination of the corpses of people who died from injuries in water transport. Forensic examination of the corpses of persons who died during a fall from a height. | 8 | - | 1 | **–** | **–** | 7 |
| Topic 5. Forensic examination of the corpses of persons who died from the effects of sharp objects. Forensic examination of the corpses of persons who died from the effects of cutting objects. Forensic examination of the corpses of persons who died as a result of falling from a standing position. | 10 | 2 | 1 | **–** | **–** | 7 |
| Topic 6. Forensic examination of the corpses of persons who died from the impact of prickly objectsForensic examination of the corpses of persons who died as a result of the impact of chopping objects | 8 | **–** | 1 | **–** | **–** | 7 |
| Topic 7. Firearms, ammunition, firing mechanism, additional firing factors, mechanism of action of the projectile on clothing and tissues of the human bodyForensic examination of gunshot wounds. The main issues that arise during the examination of gunshot wounds. | 10 | 2 | **1** | **–** | **–** | 7 |
| Topic 8. Features of gunshot wounds from hunting weapons. Damage when fired from a defective homemade weapon, during the explosion of grenades, mines, shells, explosives. Methods of research of smoky and smokeless powder | 8 | **–** | 1 | **–** | **–** | 7 |
| Topic 9. Diagnosis of incoming and outgoing gunshot wounds. Establishing the distance of shots, morphological signs of a shot at point-blank range, from near and far. Examination of the wound canal, establishing the direction of the wound canal.Addressing the sequence of gunshot wounds. | 8 | **–** | 1 | **–** | **–** | 7 |
| Topic 10. Rules for the removal of biological material for additional research: skin wounds, bone damage. Physical and technical methods of research of gunshot wounds. Additional research methods for gunshot wounds | 10 | **2** | 1 | **–** | **–** | 7 |
| **Total hours**  | **90** | **10** | **10** | **–** | **–** | **70** |

**Topics of the lectures**

|  |  |  |
| --- | --- | --- |
| № | Name of topics | Hours |
| 1 | Forensic examination of the corpses of persons who died as a result of exposure to various vehicles. Forensic medical examination of the corpses of people who died as a result of a car crashing into a pedestrian | 2 |
| 2 | Forensic medical examination of corpses of persons who died during other types of car injuries (falling out of the car body, pressing the car to a stationary obstacle, combined types of car injuries). Forensic examination of the corpses of persons who died in cases of motorcycle injuries. Forensic examination of the corpses of persons who died as a result of a railway injury | 2 |
| 3 | Forensic examination of the corpses of persons who died from the effects of sharp objects. Forensic examination of the corpses of persons who died from the effects of cutting objects. Forensic examination of the corpses of persons who died as a result of falling from a standing position. | 2 |
| 4 | Firearms, ammunition, firing mechanism, additional firing factors, the mechanism of action of the projectile on clothing and tissues of the human body. Forensic examination of gunshot wounds. The main issues of gunshot wounds. | 2 |
| 5 | Rules for the removal of biological material for additional research: skin wounds, bone damage. Physical and technical methods of research of gunshot wounds. Additional research methods for gunshot wounds. | 2 |
| **Total** | **10** |

                                                      **Topics of practical classes**

|  |  |  |
| --- | --- | --- |
|    № | Name of topics | Numberhours |
|  1 | Forensic examination of the corpses of persons who died as a result of exposure to various vehicles. Forensic medical examination of the corpses of people who died as a result of a car crashing into a pedestrian | 1 |
| 2 | Forensic examination of the corpses of people who died as a result of injuries inside the cab. Forensic medical examination of corpses of persons who died from moving the wheels of a car Methodology of extraction of biological material for additional research in the examination of corpses of persons who died as a result of car injuries | 1 |
| 3 | Forensic medical examination of corpses of persons who died during other types of car injuries (falling out of the car body, pressing the car to a stationary obstacle, combined types of car injuries). Forensic examination of the corpses of persons who died in cases of motorcycle injuries Forensic examination of the corpses of persons who died as a result of a railway injury | 1 |
| 4 | Methods of examination of corpses of persons who died in a plane crash. Forensic examination of the corpses of people who died from injuries in water transport. Forensic examination of the corpses of persons who died during a fall from a height. | 1 |
| 5 | Forensic examination of the corpses of persons who died from the effects of sharp objects. Forensic examination of the corpses of persons who died from the effects of cutting objects. Forensic examination of the corpses of persons who died as a result of falling from a standing position. | 1 |
| 6 | Forensic examination of the corpses of persons who died from the impact of prickly objects Forensic examination of the corpses of persons who died as a result of the impact of chopping objects | 1 |
| 7 | Firearms, ammunition, firing mechanism, additional firing factors, mechanism of action of the projectile on clothing and tissues of the human body. Forensic examination of gunshot wounds. The main issues that arise during the examination of gunshot wounds. | 1 |
| 8 | Features of gunshot wounds from hunting weapons. Damage when fired from a defective homemade weapon, during the explosion of grenades, mines, shells, explosives. Methods of research of smoky and smokeless powder | 1 |
| 9 | Diagnosis of gunshot wounds. Establishing the distance of shots, morphological signs of a shot at point-blank range, from near and far. Examination of the wound canal, establishing the direction of the wound canal. Addressing the sequence of gunshot wounds. | 1 |
| 10 | Rules for the removal of biological material for additional research: skin wounds, bone damage. Physical and technical methods of research of gunshot wounds. Additional research methods for gunshot wounds | 1 |
|  | **Total** | **10** |

**Topics of independent work**

|  |  |  |
| --- | --- | --- |
|    № | Name of topics | Numberhours |
|  1 | Forensic examination of the corpses of persons who died as a result of exposure to various vehicles. Forensic medical examination of the corpses of people who died as a result of a car crashing into a pedestrian. *Processing the literature, answering for their questions, passing the tests* | 7 |
| 2 | Forensic examination of the corpses of people who died as a result of injuries inside the cab. Forensic medical examination of corpses of persons who died from moving the wheels of a car Methodology of extraction of biological material for additional research in the examination of corpses of persons who died as a result of car injuries *Processing the literature, answering for their questions, passing the tests* | 7 |
| 3 | Forensic medical examination of corpses of persons who died during other types of car injuries (falling out of the car body, pressing the car to a stationary obstacle, combined types of car injuries). Forensic examination of the corpses of persons who died in cases of motorcycle injuries Forensic examination of the corpses of persons who died as a result of a railway injury. *Processing the literature, answering for their questions, passing the tests* | 7 |
| 4 | Methods of examination of corpses of persons who died in a plane crash. Forensic examination of the corpses of people who died from injuries in water transport. Forensic examination of the corpses of persons who died during a fall from a height. *Processing the literature, answering for their questions, passing the tests* | 7 |
| 5 | Forensic examination of the corpses of persons who died from the effects of sharp objects. Forensic examination of the corpses of persons who died from the effects of cutting objects. Forensic examination of the corpses of persons who died as a result of falling from a standing position. *Processing the literature, answering for their questions, passing the tests* | 7 |
| 6 | Forensic examination of the corpses of persons who died from the impact of prickly objects Forensic examination of the corpses of persons who died as a result of the impact of chopping objects *Processing the literature, answering for their questions, passing the tests* | 7 |
| 7 | Firearms, ammunition, firing mechanism, additional firing factors, mechanism of action of the projectile on clothing and tissues of the human body. Forensic examination of gunshot wounds. The main issues that arise during the examination of gunshot wounds. *Processing the literature, answering for their questions, passing the tests* | 7 |
| 8 | Features of gunshot wounds from hunting weapons. Damage when fired from a defective homemade weapon, during the explosion of grenades, mines, shells, explosives. Methods of research of smoky and smokeless powder *Processing the literature, answering for their questions, passing the tests* | 7 |
| 9 | Diagnosis of gunshot wounds. Establishing the distance of shots, morphological signs of a shot at point-blank range, from near and far. Examination of the wound canal, establishing the direction of the wound canal. Addressing the sequence of gunshot wounds. *Processing the literature, answering for their questions, passing the tests* | 7 |
| 10 | Rules for the removal of biological material for additional research: skin wounds, bone damage. Physical and technical methods of research of gunshot wounds. Additional research methods for gunshot wounds *Processing the literature, answering for their questions, passing the tests* | 7 |
|   | **Total** | **70** |

**Policy and values of Discipline**

 *Discipline claims:*

 Written and homework must be completed in a timely manner, and if higher education students have questions, they can contact the teacher in person or by e-mail, which the teacher will provide at the first practical lesson.

 *Practical training*

 Active participation in the discussion in the audience, higher education students should be ready to understand the material in detail, ask questions, express their views, discuss. During the discussion it is important:

 - respect for colleagues,

 - tolerance for others and their experience,

 - receptivity and impartiality,

 - the ability to disagree with the opinion, but to respect the identity of the opponent (s),

 - careful argumentation of his opinion and the courage to change his position under the influence of evidence,

 - self-expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on their own thoughts and emotions,

 A creative approach in its various manifestations is welcome. Students are expected to be interested in participating in city, national and international conferences, competitions and other events in the subject profile.

**Class attendance and behavior.**

 *Attendance* at lectures and practical classes is obligatory. If the students missed classes, they must work off them. The practice of missed practical classes takes place daily from 15.00 to 17.00 at the department, according to the schedule on the information stand. Practice involves oral questioning, solving written or computer tests of up to 20 test tasks. Missed lectures must be written in reference by hand up to 10 pages on A4 sheets. The abstract should be written with reference to sources of literature and passed to the teacher. If the students have questions, they can contact to the teacher online or by e-mail.During the lecture, it is desirable to keep notes and keep a sufficient level of silence, it is possible to ask questions. Before conducting practical classes, students must prepare for the topic of the lesson, take part in discussions, ask questions, express their views. During the discussion it is necessary to maintain respect for colleagues, tolerance for their experience, receptivity and impartiality, the ability to constructive criticism, references to literature sources, based on their own emotions and opinions.

 During the classes it is allowed:

 - leave the audience for a short time if necessary and with the permission of the teacher;

 - drink non-alcohol drinks;

 - make the photos of presentation slides;

 - take an active part in the class.

 During the classes it is not allowed:

 - eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required);

 - smoking, drinking alcohol and even low-alcohol drinks or drugs;

 - use obscene language or use words that offend the honor and dignity of colleagues and faculty;

 - gambling;

 - damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter the premises and territories);

 - shouting, shouting or listening to loud music in classrooms and even in corridors during classes.

 *Using of electronic gadgets*.

 Using of electronic gadgets is the main and powerful source of information for studying the course, adaptable to modern requirements and promotes entry into the modern European educational space. Gadgets provide constant feedback: "teacher-student", "student-student", "student-student group".

 *Academic Integrity Policy*.

 The Department of Forensic Medicine, Medical Law named after Honored Professor M.S. Bokarius supports zero tolerance for plagiarism. Male and female students are expected to constantly raise their awareness of academic writing. At the first classes will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

 *Policy for people with special educational needs.*

 The organization of inclusive education in higher education schools is carried out in accordance with the order of KhNMU № 203 from 22.06.2018 "On approval of the procedure for support (assistance) of persons with disabilities, the elderly, other low-mobility groups during their stay (indoors) KhNMU.

 Recommendations for successful completion of the discipline (activity of higher education students during practical classes, completion of the required minimum of educational work).

 During the study of the discipline the student is obliged to:

 - regularly attend practical classes and lectures;

 - keep notes of practical classes;

 - take an active part in work in the classroom;

 - perform semester assignments.

 *Incentives and penalties.*

 Additional points (up to 10 points) are provided for research work at the department, which involves publication abstracts in books of scientific and practical conferences and a speech at student scientific conferences with a report and presentation. The poster report at the conference is also taken into account. The corresponding number of points is taken into account by the teacher of the group and summed up along with the total number of points for the current educational activity.

 *Safety precautions*.

 The first lesson will explain the basic principles of labor protection at the department by conducting briefings. It is expected that everyone should know where the nearest evacuation exit to the audience, where the fire extinguisher is, how to use it, and so on. After the briefing, each student must sign the briefing Journal of the Department of Occupational Safety. Students must be present in the classrooms of the department during classes in medical clothing (medical cap, medical coat).

 *The procedure for informing about changes in the syllabus, etc*.

 The syllabus of the discipline must be updated annually in all components, except for the mission (goals) and program learning outcomes.

 The basis for updating the syllabus may be:

 - by initiative of the Guarantor of the educational program and / or teachers of the discipline;

 - by initiative of applicants for higher education by applying to the Guarantor of the educational program;

 - by initiative of employers;

 - after the results of assessment of students' knowledge of the discipline;

 - after objective changes of infrastructural, personnel nature and / or other resource conditions of syllabus realization;

 - the results of the obligatory survey of students about their impressions of studying the initial discipline.

**Policy of rating**

Rating system and requirements.

The form of assessment of the discipline is a test, which is based on the results of current educational activities and final control..

***Rating of current educational activities.***Current control is carried out at each practical lesson on each educational topic in the form of oral interviews, testing, conversations of students on predetermined issues, in the form of speeches of higher education students with reports when discussing educational issues. During the evaluation of each topic, the applicant is given a grade on the traditional 4-point scale: "excellent", "good", "satisfactory" or "unsatisfactory". After the last lesson, the arithmetic mean of the sum of all grades is determined and converted into points using a table of coefficients, in accordance with the Instruction on evaluation of educational activities under the European credit transfer system of educational process (Order of KhNMU № 52 from 23.02.2016). In this case, the maximum number of points assigned for the current educational activity may be 200 points, the minimum number - 120 points.

**Transfer of the average score for current activities in a multi-point scale**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 4-бальна шкала | 200-бальна шкала |  | 4-бальна шкала | 200-бальна шкала |  | 4-бальна шкала | 200-бальна шкала |
| 5 | 200 | 4.22-4,23 | 169 | 3.45-3,46 | 138 |
| 4.97-4,99 | 199 | 4.19-4,21 | 168 | 3.42-3,44 | 137 |
| 4.95-4,96 | 198 | 4.17-4,18 | 167 | 3.4-3,41 | 136 |
| 4.92-4,94 | 197 | 4.14-4,16 | 166 | 3.37-3,39 | 135 |
| 4.9-4,91 | 196 | 4.12-4,13 | 165 | 3.35-3,36 | 134 |
| 4.87-4,89 | 195 | 4.09-4,11 | 164 | 3.32-3,34 | 133 |
| 4.85-4,86 | 194 | 4.07-4,08 | 163 | 3.3-3,31 | 132 |
| 4.82-4,84 | 193 | 4.04-4,06 | 162 | 3.27-3,29 | 131 |
| 4.8-4,81 | 192 | 4.02-4,03 | 161 | 3.25-3,26 | 130 |
| 4.77-4,79 | 191 | 3.99-4,01 | 160 | 3.22-3,24 | 129 |
| 4.75-4,76 | 190 | 3.97-3,98 | 159 | 3.2-3,21 | 128 |
| 4.72-4,74 | 189 | 3.94-3,96 | 158 | 3.17-3,19 | 127 |
| 4.7-4,71 | 188 | 3.92-3,93 | 157 | 3.15-3,16 | 126 |
| 4.67-4,69 | 187 | 3.89-3,91 | 156 | 3.12-3,14 | 125 |
| 4.65-4,66 | 186 | 3.87-3,88 | 155 | 3.1-3,11 | 124 |
| 4.62-4,64 | 185 | 3.84-3,86 | 154 | 3.07-3,09 | 123 |
| 4.6-4,61 | 184 | 3.82-3,83 | 153 | 3.05-3,06 | 122 |
| 4.57-4,59 | 183 | 3.79-3,81 | 152 | 3.02-3,04 | 121 |
| 4.54-4,56 | 182 | 3.77-3,78 | 151 | 3-3,01 | 120 |
| 4.52-4,53 | 181 | 3.74-3,76 | 150 | **Менше 3** | **Недостатньо** |
| 4.5-4,51 | 180 | 3.72-3,73 | 149 |  |  |
| 4.47-4,49 | 179 | 3.7-3,71 | 148 |
| 4.45-4,46 | 178 | 3.67-3,69 | 147 |  |  |
| 4.42-4,44 | 177 | 3.65-3,66 | 146 |  |
| 4.4-4,41 | 176 | 3.62-3,64 | 145 |  |  |
| 4.37-4,39 | 175 | 3.6-3,61 | 144 |  |  |
| 4.35-4,36 | 174 | 3.57-3,59 | 143 |  |  |
| 4.32-4,34 | 173 | 3.55-3,56 | 142 |  |  |
| 4.3-4,31 | 172 | 3.52-3,54 | 141 |  |  |
| 4,27-4,29 | 171 | 3.5-3,51 | 140 |  |  |
| 4.24-4,26 | 170 | 3.47-3,49 | 139 |  |  |

 ***Assessment of students' independent work.***Independent work of students, which is provided in the topic along with classroom work, is assessed during the current control of the topic in the relevant practical lesson. Assimilation of topics that are submitted only for independent work is assessed during the differentiated test.

***Assessment of the final control*** is carried out at the last final lesson and consists of 30 test computer tasks (evaluation criterion - 90.5% of correct answers, "passed", "failed"). Students who have scored at least 120 points for their current academic activity and do not have debts in the form of missed classes, lectures or unsatisfactory grades are admitted to the final control. If the total number of rating points for the study of the discipline is from 120 to 200 points, then, subject to the successful completion of the final control, the student is credited with a test in the discipline. The teacher puts the student the appropriate number of points in the record book and puts a mark "passed", and then fills out a statement of success in the discipline. If the student has not passed the final control at the final lesson, the date of re-assembly of the final control is set at a convenient time. Persons who have not met the requirements of the curricula of disciplines are assessed as "unsatisfactory".

**Accordance the 200-point scale,**

**four-point (national) scale to ECTS scale**

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| Ratingon a 200-point scale | Assessment on the ECTS scale | Score forfour-point (national) scale |
| 180–200 | A | Excellent |
| 160–179 | B | Good |
| 150–159 | C | Good |
| 130–149 | D | Satisfaction |
| 120–129 | E | Satisfaction |
| Less than 120 | F, Fx | Unsatisfaction |

The positive mark of the discipline (A,B,C,D,E) is giving only to students which passed all the classes and differentiated credit. The students which do not passed the differentiated credit only get  mark **F X,**if they were admitted to the final class. Mark **F is given**to students who are not admitted to the differentiated credit at all.

Elimination of academic debt.

Completion of missed classes for any reason is obligatory for all students, regardless of funding sources. Classes that were missed for good reasons are practiced free of charge. Rework of missed class, for 1 month after it was missed, is made without the permission of the dean and at no charge, regardless of the reasons of missing. Students are required to rework missed classes out prior to the examination session, unless providing individual schedule established at the University.

Practices are carried out by the on-duty teacher of the department, according to the schedule of shifts on the information stand of the department.

Practical classes include oral examinations, solving written or computer tests with a volume of up to 30 test tasks. Missing lectures are handwritten by writing an essay of up to 10 pages on A4 sheets. The abstract should be written with reference to sources of literature and passed personally to the teacher. If students have questions, they can contact the teacher in person, online or by e-mail. The mark on working off is entered by the teacher in the journal of the account of working off of the missed employment. A positive assessment of the work is entered in the journal of the academic group. It is mandatory to work out unsatisfactory grades received by a student in class. Practice of the unsatisfactory assessment received by the student at the current control is carried out free of charge to the teacher.

Control questions for independent work:

 1. Organizational and procedural bases of forensic examination in Ukraine. Rights, duties and responsibilities of a forensic expert. Forensic documentation.

2. Forensic examination - the subject and objectives of the industry, the objects of examination, regulatory and legal documents, documentation.

3. Methods of forensic examination. The structure of the "Expert Opinion". Requirements for drawing up conclusions and the procedure for signing them. Responsibility of the expert. Involvement of consulting doctors.

4. Examination of the scene - the task of the doctor during the examination of the corpse at the place of its detection, documentation, scheme of description of the corpse at the scene, the rules of seizure of physical evidence of biological origin.

5. Damage by blunt objects. Classification of blunt objects. Types of bodily injuries and the mechanism of their infliction from the action of blunt objects. Forensic significance of abrasions.

6. Damage by blunt objects. Forensic significance of bruises.

7. Classification and differential diagnosis of wounds caused by blunt objects.

8. Damage by sharp objects. Classification of sharp objects and wounds that caused them. Differential diagnosis of cut and chopped wounds.

9. Classification of sharp objects and wounds that caused them. Signs of a stab wound. The main and additional incision and its forensic significance.

10. The nature, mechanism of occurrence and forensic significance of fractures of the ribs, spine, bones of the facial skull. Types of fractures. Direct and indirect fractures.

11. Falling from a height - types of falls, features of the scene and examination in these cases. Fall on the plane.

12. Determining the viability and duration of injuries in forensic medicine.

13. The nature, mechanism of occurrence and forensic significance of fractures of flat and tubular bones.

14. Forensic examination of death and injuries caused by falling from a height, their differential diagnosis with trauma.

15. Definition of the term "autotrauma". Specific, characteristic and uncharacteristic injuries due to car injury. Forensic medical examination of cases of a person falling out of a car cab.

16. Types of car injuries. Forensic medical examination of cases of a car crashing into a pedestrian. The value of the bumper fracture.

17. Forensic examination of cases of moving the body by a car wheel.

18. Forensic medical examination of cases of driver and passenger injuries inside the car.

19. Classification of traffic injuries. Forensic medical examination of a motorcycle injury. Classification and types of motor injuries. Specific, characteristic and uncharacteristic injuries in these cases.

20. Forensic examination of railway injury. Issues that are resolved during the forensic examination of this type of injury.

21. Gunshot wounds. Determination of the inlet and outlet on the skin and bones. Types of spherical wound canals. Determining the distance of the shot. The phenomenon of Vinogradov.

22. Classification of firearms. Forensic examination of injuries due to hunting weapons. Fraction damage. Determination of the inlet and outlet, the distance of the shot.

23. Explosive injury. Features of forensic medical examination of victims of the explosion. The range of issues to be decided by a forensic expert.

24. Laboratory research methods in the examination of gunshot wounds and their capabilities.

25. Forensic research methods and their possibilities.

26. Identification studies of injuries. Possibilities of identification studies of corpse bones. Establishing identity by dental status.

27. Definition of the term "bodily injury". Loss of an organ or loss of an organ of its function - types of injuries, assessment by severity, features of forensic examinations of these injuries.

28. Forensic examination of living persons. Classification of severity of injuries and their qualifications.

29. Forensic examination of living persons. Signs of serious injury. List of life-threatening injuries.

30. Forensic examination of living persons. Qualification signs of light bodily injuries and injuries of medium severity.

31. Forensic examination of living persons. Types of general and professional capacity for work, the procedure for establishing its loss.

32. Forensic examination of health, simulation, aggravation, artificial diseases.

33. Forensic examination of clothing and footwear due to traumatic injury.

34. Forensic examination of instruments of injury, issues that can be resolved during forensic examination.

35. The use of infrared and ultraviolet lighting in the case of laboratory tests of traumatic injuries.

36. Forensic examination of blood stains on clothing and instruments of injury.

37. Forensic examination of the objects of injury and its possibilities.

38. Forensic examination of self-injuries and features of such examinations.

39. Differential diagnosis of falls from a height and car injury.

40. Differential diagnosis of gunshot wounds and stab wounds from sharp objects.

**Tasks for independent work.** Processing the literature, answering for their questions, passing the tests for self-control, describing the preparations.

**Rules for appealing the assessment**

The student's appeal regarding the assessment of the discipline (number of points) must be submitted in person no later than the next working day after the announcement of the assessment. The appeal is considered no later than the next day after its submission in the presence of the student. Additional questioning of the student when considering appeals is not allowed. The procedure for filing and reviewing an appeal must be made public and brought to the notice of the student no later than 7 days before the exams.

 **Guarantor of the educational program,**

 **Professor of the Department of Internal**

 **Medicine N2, Clinical Immunology and**

 **Allergology named after academician**

 **L.T. Malaya, Doctor of Medicine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ N. Ryndina**

 **Head of the Department of**

 **Forensic Medicine, Medical Law**

 **named after Hon. Prof. M.S. Bokarius,**

 **Doctor of Medicine, Professor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ O. Dunaev**