

# ODESSA NATIONAL MEDICAL UNIVERSITY

## Faculty of dentistry

### Department of Forensic Medicine

#### Course syllabus

#### Forensic medicine

Volume	3,0 ECTS credits, total -90 academic hours Lectures-16 academic hours , practical classes -50 academic hours , SIW-30 academic hours
Semester, academic year	V semester, 3 <sup>rd</sup> academic year
Days, time, month	Discipline is carried out according to the approved schedule, in the premises of the Department of Forensic Medicine
Teachers	Teachers of the Department of Forensic Medicine
Telephone number	(048) 723-76-90
E-mail	Larsonlarisa2@gmail.com
Workplace	Premises of the Department of Forensic Medicine
Consultations	Online consultations – microsoftteams

#### COMMUNICATION

Communication with students will be carried out by E-mail, Microsoft Teams, by phone, in the classroom on schedule.

#### COURSE ANNOTATION

**The subject of study** of the discipline is the theory and practice of forensic examination as a practical branch of medicine.

#### Prerequisites

The basis for mastering the discipline is the knowledge, skills and abilities acquired in the study of anatomy, pathological anatomy, histology, cytology and embryology, medical biology, parasitology and genetics, physiology, biological chemistry, pathological physiology.

#### Postrequisites

Forensic medicine as a discipline involves the study of the relationship with the following disciplines: internal medicine, surgery, neurology, epidemiology, traumatology, neurology, neurosurgery.

**Course purpose:**

1) study of typical general pathological processes, which determine the morphological manifestations of diseases and injuries.

2) study of the structural basis in the formation of various types of traumatic injuries, their complications and consequences,

3) forensic explanation of the mechanism of injury and cause of death due to exposure to various external factors,

4) study of methods of forensic and pathomorphological examinations: autopsy, examination of biomaterial, material evidences of biological origin and instruments of crime in different divisions of the department of forensic examination of material evidence.

**Tasks of the discipline:**

1) understanding the basics of the mechanism of injury and the formation of injuries in the development of general pathological processes of the human body as a result of injury, combination of which determines the morphological manifestations;

2) mastering the algorithm for dividing injuries by degree of severity;

3) the ability to describe the corpse at the place of its discovery (scene),

4) the concept of forensic medical criminalistic examination of objects,

5) obtaining skills of clinical and anatomical analysis, synthetic generalization of diagnostic signs of traumatic injuries and their correct interpretation in causal relations.

**Expected results:****As a result of studying the discipline the student must:*****know:***

- laws, turned on the protection of inviolability of the individuality;
- rules and duties and responsibility of the medical staff for the professional offence, and also main laws, which regulate the practice of the medical staff;
- the modern scientific data from all parts of the forensic medicine, and also use the main methods of examination of the main objects of forensic-medical examination (examination of the corpses, alive persons and material evidences)

***be able to do:***

- Demonstrate the skills of description and extraction of the material evidences of the biological origin.
- Demonstrate the ability to describe the body injuries
- Demonstrate the ability to perform the forensic-medical examination of the victim, accused and other persons
- Demonstrate the ability to perform forensic-medical examination of the corpse and detect the cause of the violent death
- Ability to describe the dental status of the victim.
- Understand the principles of forensic dental identification of an unknown person.

- The ability to use the signs of the severity of injuries in determining their severity on the face.

### **DESCRIPTION OF THE COURSE**

The course will be presented in the form of lectures (16 hours), practical classes (50 hours), organization of independent work of students (30 hours)

Forms and methods of teaching:

1) lectures (topics of the lecture course reveal the problematic issues of the relevant sections of the discipline. Lecturers can use such options for lectures as educational, informational, lecture-visualization, lecture-discussion, lecture-consultation);

2) practical classes (during the practical class oral and written interviews, solving test tasks, solving situational problems are done);

3) independent work (SIW) with active consultation of the teacher (during independent work students master the material of the next practical lesson. At the consultations the student can get answers to complex questions of the topic).

### **Content of the discipline**

**Section 1. Organization of forensic medical examination and general principles of examination of the influence of environmental factors on the human body.**

**Topic 1.** Subject of forensic medicine. History of its development as an independent science. Organization aspects of performing of forensic-medical examination. Forensic dentistry in the system of forensic knowledge.

**Topic 2.** General aspects of forensic tanatology. Process of dying and death. Clinical and biological death, their diagnosing. Early and late body changes. Diagnosis of the time of death occurrence. Examination of the corpse on the scene of its detection. Forensic examination of the corpse in case of sudden death.

**Topic 3.** Postmortem teeth's changes. Detection of degree of the body injury in the case of dental injury. Role of forensic expert during the examination of the corpse on the place of its detection.

**Topic 4.** Forensic examination of the detection of degree of the body injuries, condition of the health and age, disputed sexual conditions and sexual crimes. Detection of degree of the body injury in the case of dental injury.

**Topic 5.** General aspects of the forensic traumatology. Environmental factors, which cause injuries. Outcomes of the injury. Description of the injuries. Injuries caused by blunt objects. Classification of the blunt objects. Bruises, abrasions, hurt wounds. Bone fractures. General aspects of craniocerebral injury. Fractures of the bones of the

maxillofacial region. Determination of the viability and duration of damage to the soft tissues of the face and teeth.

Forensic examination of gun-shot injuries. Forensic explanation of the mechanism of injury and death caused by gun-shot weapons.

Forensic examination of the detection of degree of the body injuries, condition of the health and age, disputed sexual conditions and sexual crimes. Detection of degree of the body injury in the case of dental injury.

Forensic examination of mechanic asphyxia. Forensic explanation of the mechanism of the injury and death caused by the mechanic asphyxia.

**Topic 6.** Forensic examination of injuries and death from extreme temperatures; atmospheric and technical electricity; radiant energy; sharply changed barometric pressure.

**Topic 7.** Forensic toxicology. General data about poisons and poisonings. Forensic examination of alcohol intoxication. Forensic examination of the death, resulted by drugs (narcotics) Forensic-medical examination of the injuries of the face and teeth with chemical agents.

**Topic 8.** Forensic examination of material evidences of biological origin. Forensic-criminalistic researches of the forensic objects. Forensic-medical person's identification using dental status. Forensic-medical bases of person's identification using teeth.

**Topic 9** Forensic examination in the cases of malpractice of medical staff's. Forensic-medical examination of unfavorable outcomes in stomatological practice.

## Literature

1. B.V. Mykhailychenko, A.M.Biliakov, I.G. Savka. Forensic medicine: Textbook. –Kyiv: AUS Medicine Publishing, 2019. – 224 p.;
2. Franchuk V.V. Forensic Medicine : practical guide / V.V. Franchuk. – Ternopil : TSMU, 2011. – 204 p.
3. Journal of Clinical Forensic Medicine ##

## Information resources

University websites and electronic resources of the Internet

## EVALUATION

**Current control:** oral control, testing, assessment of practical skills, solving situational clinical problems, assessment of activity in the classroom.

**Final control:** credit

### About the evaluation of the current educational activity in a practical session

When assessing the mastery of each topic, a student of higher education is given grades on a 4-point (traditional) scale ("2", "3", "4", "5").

### 1. Evaluation of theoretical knowledge on the subject of the lesson:

- methods: survey, solving a situational clinical problem, tests
- the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

**2. Assessment of practical skills on the topic of the lesson:**

- methods: assessment of the correctness of the performance of practical skills
- the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

The grade for one practical session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

**Evaluation of the independent work of a student of higher education.** The independent work of a student of higher education, which is provided by the topic of the lesson along with the classroom work, is evaluated during the current control of the topic in the corresponding lesson.

**Current assessment criteria for practical training:**

<b>Rating</b>	<b>Evaluation criteria</b>
«5»	The applicant is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills during the examination of the victim or corpse and interpretation of clinical, laboratory and instrumental studies, expresses the opinion on the topic, demonstrates clinical thinking
«4»	The applicant is well versed in the material, participates in the discussion and solution of situational clinical problems, demonstrates practical skills during the examination of the victim or corpse and interpretation of clinical, laboratory and instrumental studies with some errors, expresses the opinion on the topic, demonstrates clinical thinking.
«3»	The applicant does not know enough material, insecurely participates in the discussion and solution of a situational clinical problem, demonstrates practical skills during the examination of the victim or corpse and interpretation of clinical, laboratory and instrumental studies with significant mistakes
«2»	The applicant does not know the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of the victim or corpse and the interpretation of clinical, laboratory and instrumental data.

Credit is given to the student who completed all tasks of the work program of the academic discipline, took an active part in practical classes, completed and defended an individual assignment and has an average current grade of at least 3.0 and has no academic debt. Assessment is carried out: at the last lesson before the beginning of the examination session - with the tape system of learning, at the last lesson - with the

cycle system of learning. The credit score is the arithmetic mean of all components according to the traditional four-point scale and has a value that is rounded according to the statistics method with two decimal places after the decimal point.

### **Distribution of points received by applicant of higher education**

The obtained average score for the academic discipline for applicants who have successfully mastered the work program of the academic discipline is converted from a traditional four-point scale to points on a 200-point scale, as shown in the table:

#### **Conversion table of a traditional assessment into a multi-point scale**

<b>National assessment for discipline</b>	<b>The sum of points for the discipline</b>
Excellent ("5")	185 - 200
Good ("4")	151 - 184
Satisfactory ("3")	120-150
Unsatisfactory ("2")	Below 120

Multi-point scale (200-point scale) characterizes the actual success of each applicant in mastering the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according to the ECTS scale do not coincide with the limits of grades "5", "4", "3" according to the traditional scale. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but

who have not passed the final examination. A grade of "F" is given to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

**Conversion of the traditional grade from the discipline and the sum of points on the ECTS scale**

<b>Evaluation on the ECTS scale</b>	<b>Statistical indicator</b>
A	Top 10% achievers
B	The next 25% of earners
C	The next 30% of earners
D	The next 25% of earners
E	The next 10% of earners

**Course Policy**

**Deadline and recompilation policy:**

All missed classes must be completed.

Lectures are practiced by writing essays on the topic of the lesson. Practical classes are practiced according to the schedule of consultations.

Applicant do not have the right to rearrange the current satisfactory and unsatisfactory grades in order to increase the arithmetic mean of all current grades. Applicant have the right during the semester to retake current unsatisfactory grades only in order to achieve an average current score of 3.00.

**Academic Integrity Policy**

Adherence to academic integrity by applicants provides:

- independent performance of educational tasks, tasks of current and final control of learning outcomes (for persons with special educational needs this requirement is applied taking into account their individual needs and opportunities);
- links to sources of information in the case of the use of ideas, developments, statements, information; - compliance with the law on copyright and related rights;
- providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information. Unacceptable in educational activities for participants in the educational process are:

- the use of family or business ties to obtain a positive or higher assessment in the implementation of any form of control over learning outcomes or advantages in scientific work;

- use of prohibited auxiliary materials or technical means (cheat sheets, abstracts, headphones, telephones, smartphones, tablets, etc.) during control measures;

- passing the procedures of control of learning outcomes by fictitious persons. For violation of academic integrity, students may be held subject to the following academic liability:

- reduction of results of assessment of control work, examination, credit, etc.; - re-assessment (test, exam, test, etc.);

- appointment of additional control measures (additional individual tasks, tests, tests, etc.);

- re-passing the relevant educational component of the educational program; - conducting additional verification of other works by the infringer;

- deprivation of the right to participate in competitions for scholarships, grants, etc.;

- notification of the entity that finances the training (scientific research), the institution that issued the grant for training (research), potential employers, parents of the applicant for higher education about the violation;

- exclusion from the rating of applicants for an academic scholarship or accrual of penalty points in such a rating;

- deprivation of an academic scholarship; - deprivation of tuition benefits provided by the University;

- expulsions from the University.

### **Attendance and lateness policy**

The applicant should not miss lectures and practical classes, the absence of valid reasons should be informed in advance to the teacher, delays are not desirable.

### **Mobile devices**

It is not allowed to use a mobile phone, tablet or other mobile devices during the lesson (except in cases provided by the curriculum and guidelines of the teacher).

### **Behavior in the audience**

Creative, business, friendly atmosphere.