


MINISTRY OF HEALTH OF UKRAINE  
KHARKIV NATIONAL MEDICAL UNIVERSITY  
Department of Pathological anatomy  
Academic year 2021-2022

**SYLLABUS OF THE ACADEMIC DISCIPLINE**  
**«BIOPSY-AUTOPSY COURSE»**

Educational component elective  
Type of education full-time  
Branch of knowledge 22 "Health care"  
Specialty 222 "General Medicine"  
Educational and professional program "Medicine" of the second (master's) level of higher education  
Course fifth

The syllabus of the discipline was approved at the meeting of the Pathological Anatomy Department Protocol № 1 from "30" August 2021

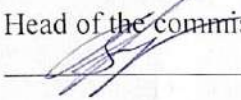
Acting Head of the Pathomorphology Department, professor

  
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Approved by the methodical commission of KhNMU on problems of general and pre-professional training

Protocol № 1 from "31" August 2021

Head of the commission, professor

  
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3. Pliten Oksana – MD, PhD, Associate professor;

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Information about the consultations: consultations in the University: Pathologic Anatomy Department, 4 Nauky Ave., Kharkiv, main building of KhNMU, 3 floor;  
Online consultations: Online consultations by prior arrangement for which it is necessary to write a letter to the corporate e-mail to the duty teacher according to the schedule of shifts in the department or a teacher of the academic group, and get a link to the conference in Google Meet, where the online consultation will take place.

Location of the Department: 4 Nauky Ave., Kharkiv, main building of KhNMU, 3 floor

## INTRODUCTION

The syllabus of the discipline " Biopsy-Autopsy course " is compiled in accordance with the Educational and Professional Program "Medicine" and the draft Standard of Higher Education of Ukraine (hereinafter - the Standard) of the second level (master) branch of knowledge 22 "Health" speciality 222 "Medicine".

**General characteristics of the discipline** Biopsy-Autopsy course is an academic discipline that gives information about the role and place of Pathologist in the Healthcare System, organization and purpose of Pathology service, lifetime pathologic diagnostics, skills of analysis and prevention of diagnostic and treatment mistakes, as well as the issuance of a medical certificate of death. Describes the professional requirements for a pathologist, the concept of nosology, the underlying disease, its complications and causes of death. Reveals the approach to autopsy of both adults and infants with examples of writing an autopsy report, clinical and pathological epicrisis and registration of death certificates. Gives recommendations on the practical work of a pathologist.

The role and place of Biopsy-Autopsy course in the system of training The basis of Biopsy-Autopsy course is Pathologic anatomy (Pathology). Pathologic anatomy (from the Greek *pathos* – suffering) – a basic science of the structural basis of disease and pathologic processes, which studies changes in organelles, cells, intercellular matrix, tissues and organs of the sick person, as well as the causes and mechanisms of death. Pathologic anatomy is both a clinical science and a branch of practical medicine, it plays a central role in the lifelong and postmortem diagnosis of human diseases. Diagnosis (Greek. *Diagnōsis*) in medicine – is the recognition, definition of the disease. Pathologists who work in medical institutions and specialized pathology departments recognize diseases during the life of patients, as well as after their death.

### **Interdisciplinary links:**

**Prerequisites of the discipline:** normal anatomy, physiology, histology, pathomorphology, pathological physiology, genetics, propaedeutics of internal medicine, general surgery;

**Co-requisites of the discipline:** dentistry, internal medicine, family medicine, obstetrics and gynecology, surgery, pediatric surgery, infectious diseases

**Discipline page in the Moodle:**

<http://distance.knmu.edu.ua/course/view.php?id=262>

**1. The purpose and objectives of the discipline**

**1.1** The **purpose** of the discipline study – to master the method of clinical and anatomical analysis of biopsy, operation and section material, and principles of Pathology diagnosis formulation, autopsy technic, and Pathology's documents preparation.

**1.2** The main **objectives** of studying the discipline are:

1) laying the foundations of knowledge on the organization of pathological service in Ukraine and its purpose;

2) study by students of methods of diagnostics of pathological processes and diseases by research of biopsies and postoperative material (light and electron microscopy, immunohistochemistry, autoradiography, histochemistry and cytochemistry);

3) study of the importance of clinical and anatomical analysis as a method of knowledge of the circumstances of diseases, features of their course, causes and mechanisms of death, their development (morphogenesis), the structural basis of recovery, complications and consequences of diseases;

4) definition of the structure of clinical and pathological diagnoses (underlying disease, its complications, comorbidities, cause of death), as well as the concept: combined main disease, laying the foundations of knowledge on the organization of pathological service in Ukraine and its purpose;

2) study by students of methods of diagnostics of pathological processes and diseases by research of biopsies and postoperative material (world and electron microscopy, immunohistochemistry, autoradiography, histochemistry and cytochemistry);

- 3) study of the importance of clinical and anatomical analysis as a method of knowledge of the circumstances of diseases, features of their course, causes and mechanisms of death, their development (morphogenesis), the structural basis of recovery, complications and consequences of diseases;
- 4) definition of the structure of clinical and pathological diagnoses (underlying disease, its complications, comorbidities, cause of death), as well as the concept: combined main disease, competitive, combined and background diseases with the use of the International Classification of Diseases of X<sup>th</sup> revision.
- 5) consideration of variants of pathomorphosis of diseases arising in connection with changing human living conditions and as a result of various therapeutic measures (pathology of therapy);
- 6) providing information on morphological and clinical manifestations of diseases at all stages of their development, generalization of clinical and anatomical analytic skills, synthetic analysis of diagnostic signs of diseases and their correct interpretation in causal relationships;
- 7) determining the role of clinical and anatomical conferences, medical control commission and commission for the study of lethal outcomes.

### **1.3 Competencies and Learning outcomes**

**1.3.1.** According to the requirements of the standard, the discipline provides students with the acquisition of competencies:

General competencies:

- Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained
- Ability to apply knowledge in practical situations
- Knowledge and understanding of the subject area and understanding of professional activity
- Ability to adapt and act in a new situation
- Ability to make an informed decision; work in a team; interpersonal skills
- Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language

- Skills in the use of information and communication technologies
- Definiteness and perseverance in terms of tasks and responsibilities
- Ability to act socially responsibly and consciously

Professional competencies:

- Ability to determine the required list of laboratory and instrumental studies and evaluate their results
- Ability to establish a preliminary and clinical diagnosis of the disease
- Ability to determine the principles and nature of treatment of diseases
- Skills to perform medical manipulations
- Ability to keep medical records
- Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population
- Ability to analyze the activities of the doctor, unit, health care institution, to take measures to ensure the quality and safety of medical care and increase the efficiency of medical resources

### **1.3.2. Program learning outcomes**

PLO 1 - Have general and special fundamental and professionally-oriented knowledge, skills, abilities, competencies necessary to perform typical professional tasks related to activities in the medical field in the relevant position

PLO 2. To have knowledge about psychophysiological features of the person, human health, support of health, prevention of diseases, treatment of the person, health of the population

PLO 3 - to apply the acquired knowledge, skills and understanding to solve typical problems of the doctor, the scope of which is provided by lists of syndromes and symptoms, diseases, emergencies, laboratory and instrumental research, medical manipulations

PLO 4 - to collect information about the patient

PLO 5 - evaluate the results of surveys, physical examinations, laboratory and instrumental research data

PLO 6 - to establish a preliminary clinical diagnosis of the disease

PLO 7 - to determine the nature, principles of treatment of diseases

PLO 15 – to do medical manipulations

PLO 16 - assess the impact of the environment on public health

PLO 18 - to assess the state of human health and provide its support taking into account the impact of the environment and other health factors

PLO 20 - apply the acquired knowledge about the existing health care system to optimize their own professional activities and participate in solving practical problems of the industry

PLO 21 - adhere to the code of ethics of the doctor, which ensures the formation of a specialist with appropriate personal qualities

**1.3.3.** The study of the discipline provides students with the following social skills

**(Soft skills):**

- information management
- ability to form one's own opinion and make decisions;
- emotional intelligence;
- ability to communicate with colleagues and relatives of patients.

## 2. INFORMATION CONTENT OF THE COURSE

Index	Branch of knowledge, speciality, educational degree, EPP	Characteristics of the discipline	
Amount of credits – 3,0	Branch of knowledge 22 "Health care"	Elective	
Amount of hours – 90	Specialty 222 "General Medicine"	<b>Course:</b>	
		3	
		<b>Semester</b>	
		IX or X	
Amount of classroom hours – 20 hours individual self-study of students – hours	the second (master's) level of higher education EPP "Medicine"	<b>Lectures</b>	
		hours	hours
		<b>Practical classes</b>	
		20 hours	
		<b>Lab classes</b>	
		hours	
<b>Self-study</b>			
70 hours			

		<b>Individual tasks:</b>
		Type of control: credit

## 2.1 Description of the discipline

### 2.2.1 Lectures:

№ з/п	Topic	Amount of hours	Teaching methods	Types of control
<b>1</b>				
<b>2</b>				

### 2.2.2 Seminars

№ з/п	Topic	Amount of hours	Teaching methods	Types of control
<b>1</b>				
<b>2</b>				

### 2.2.3 Practical classes:

№	Topic	amount of hours	Teaching methods	Types of control
1	Problem and methods of pathology service and its place in the world system of Public Health. The basic pathology documentation. Basic principles of Pathology service organization in hospitals.	2	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
2	Investigation methods of biopsy, operation material, placenta. Participation in process of biopsy investigation.	3	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
3	Analysis and evaluation of biopsy results. The role of biopsy in complex patient's examination and treatment.	2	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.



4	Autopsy (of adult, newborn, stillborn, foetus). Significance of an autopsy as reliable source of information about cause of death of a patient, and death-rate of population, about diagnosis and treatment quality. Autopsy procedure and autopsy documentation. Rules of official registration of the medical certificate of death, certificate of perinatal death. Information about International classification of disease – ICD-X (1995). Work with ICD-X according to the pathology diagnosis of autopsy. Autopsy protocol registration procedure.	3	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
5	Structure of the pathology diagnosis and its comparison with the clinical diagnosis. Pathology expertise. Categories of a difference of pathology and clinical diagnoses. Pathology epicrisis.	3	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
6	Features of the course, variability of diseases. Pathomorphosis of diseases (natural and induced). Pathology of diagnostic and therapeutic procedures (iatrogeny).	2	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
7	Preparation and holding of a meeting of the medical control commission, the commission for the study of fatal consequences and a clinical and anatomical conference. Deontological and ethical aspects in Pathology practice.	3	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
8	Final conclusion class. Credit.	2	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
Total amount of hours		20		

#### 2.2.4. Lab classes

№ з/п	Topic	Amount of hours	Teaching methods	Types of control
1				
2				

	Amount of hours			

### 2.2.5. Individual self-study of a student

№	Topic	amount of hours	Teaching methods	Types of control
1	Problem and methods of pathology service and its place in the world system of Public Health. The basic pathology documentation. Basic principles of Pathology service organization in hospitals.	3	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
2	Investigation methods of biopsy, operation material, placenta. Participation in process of biopsy investigation.	5	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
3	Rules of taking and processing of the material received from various organs and pathological lumps.	5	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
4	Analysis and evaluation of biopsy results. The role of biopsy in complex patient's examination and treatment.	5	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
5	Autopsy (of adult, newborn, stillborn, foetus). Significance of an autopsy as reliable source of information about cause of death of a patient, and death-rate of population, about diagnosis and treatment quality. Autopsy procedure and autopsy documentation. Rules of official registration of the medical certificate of death certificate of perinatal death. Information about International classification of disease – ICD-X (1995).	8	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.

	Work with ICD-X according to the pathology diagnosis of autopsy. Autopsy protocol registration procedure.			
6	The order of appointment and carrying out of autopsies. Terms. The autopsy procedure of the corpses of persons who died in the hospital. The autopsy procedure of the corpses of persons who died outside the hospital. The procedure for autopsies of newborns and stillborns, children's corpses.	7	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
7	Autopsy methods. Specific characteristics of autopsies of newborns and stillbirths, and fetus.	6	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
8	Principles of formulation of clinical and pathological diagnoses. Making a pathological diagnosis. Clinical and morphological analysis of the autopsy materials as assessing the quality of clinical diagnosis and treatment (pathology expertise). Comparison of clinical and pathological diagnoses. Categories of discrepancies in diagnoses. Writing a pathology epicrisis.	8	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
9	Features of the course, variability of diseases. Pathomorphosis of diseases (natural and induced). Pathology of diagnostic and therapeutic procedures (iatrogeny).	5	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
10	Preparation and holding of a meeting of the medical control commission, the commission for the study of fatal consequences and a clinical and anatomical conference. Deontological and ethical aspects in Pathology practice.	5	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
11	Pathomorphological bases of resuscitation and intensive care, their connection with forensic assessment of changes in organs and tissues.	5	creative discussions, discussions; dialogue with students; work with macro- and microspecimens;	Current control: oral survey; written survey; test control; individual tasks; abstracts;

				Final control: credit.
12	The procedure for reviewing of medical history case.	3	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
13	Final credit prepartation.	5	creative discussions, discussions; dialogue with students; work with macro- and microspeciemens;	Current control: oral survey; written survey; test control; individual tasks; abstracts; Final control: credit.
Total amount of hours		70		

### **Individual tasks:**

Writing of essays, preparing of presentations, making of projects.

## **3. ASSESSMENT POLICY**

**3.1. Assessment policy** The current learning activities of students are controlled in practical classes in accordance with specific goals and during the individual work of the teacher with students: solving situational problems; structured written works; control of practical skills and abilities.

### **Assessment of individual self-study of a student:**

Assessment of students' individual self-study, which is provided in the topic along with classroom work, is carried out during the current control of the topic in the relevant practical class.

Assessment of topics that are submitted only for individual self-study and are not included in the topics of classroom training, is controlled by the final control.

The final control is carried out upon completion of all topics study in the last practical class of the school year.

Students who have completed all types of work provided in the curriculum and have got amount of points not less than the minimum are allowed to pass the final control.

### **Assessment of current learning activities**

During the assessment of mastering each subject of the discipline and the final lesson the student is graded according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory". Conversion of the average grade for current educational activities in a multi-point scale, for a sectional course, is carried out in accordance with table 1.

### **Assessment of the final lesson**

Current educational activities (hereinafter - CEA) must be conducted during the semester on schedule, during classes.

Admission of CEA is carried out by the teacher of the academic group.

Materials for preparation for CEA software are posted on the information stand and in the course of the Department of Pathological Anatomy in SDN KhNMU Moodle, as:

- list of theoretical questions (including questions on individual self-work);
- list of practical skills;
- list of medical records for the section course;
- criteria for assessing the knowledge and skills of students;
- schedule of students completing missed classes during the semester.

### **Assessment of CEA:**

1. Assessment of the practical skills (assessment criteria - "passed" or "failed");

2. During the assessment of the student's knowledge on theoretical issues included in the lesson the student is given a traditional mark, which is converted into a multi-point scale (table 1).

3. Tasks for practical and professional training that reflect the skills and abilities in the study of certain pathological processes on the issues of the "Contemporary issues of clinical pathology", and the peculiarities of filling in medical documents on the organization and operation of the pathology service according to orders of the Ministry of Health. Registration of the autopsy report. During the evaluation of the results of the autopsy and the study of biopsy, which are defined in the list of the working curriculum of disciplines.

**Table 1****Recalculation of the average score for current activities in a multi-point scale**

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
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	<b>Less 3</b>	<b>Not enough</b>
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		

**Mark for the discipline**

The maximum amount of points that a student can get for studying a Biopsy-autopsy Course is 200 points. The minimum amount of points is 120.

**Assessment of individual student tasks**

Points for individual tasks (not more than 10) are accrued to the student once only on a commission basis (commission - head of the department, head teacher, group teacher) only if they are successfully completed and defended. The total amount points could not exceed 200 points.

### **Assessment of Individual self-study of students (ISS):**

Assimilation of topics that are submitted only for individual self-work is checked during the final lesson.

### **Discipline assessment technology**

Evaluation of the results of the study of Biopsy-autopsy Course is carried out directly during the test. The amount of points is min - 120 to max - 200. The correspondence of points on the 200-point scale, four-point (national) scale and ECTS scale is shown in Table 2.

**Table 2**

**The correspondence of points on the 200-point scale, four-point (national) scale and ECTS scale**

200-point scale	ECTS scale	Four-point (national) scale
180–200	A	Excellent
160–179	B	Good
150–159	C	Good
130–149	D	Satisfactory
120–129	E	Satisfactory
Less than 120	F, Fx	Unsatisfactory

Table 4

### **Criteria for evaluating the results of educational activities of students**

Mark	Evaluation criteria
"Excellent"	The student shows special creative abilities, is able to acquire knowledge independently, without the help of the teacher finds and processes the necessary information, is able to use the acquired knowledge and skills for decision-making in unusual situations, convincingly argues answers, independently reveals own talents and inclinations.
"Very good"	The student is fluent in the studied amount of material, applies it in practice, freely solves exercises and problems in standard situations, independently corrects mistakes, the number of which is insignificant
"Good"	The student is able to compare, summarize, systematize information under the guidance of the teacher; as a whole to apply it independently in practice; control their own activities; to correct mistakes, among which there are significant ones, to choose arguments to confirm opinions

"Satisfactory"	The student reproduces a significant part of the theoretical material, shows knowledge and understanding of the basic provisions; with the help of the teacher can analyze the educational material, correct mistakes, among which there are a significant number of significant ones
"Enough"	The student has the study material at a level higher than the initial, a significant part of it is reproduced at the reproductive level
"Unsatisfactory" with the possibility of re-compiling the semester control	The student has the material at the level of individual fragments that constitute a small part of the study material
"Unsatisfactory" with mandatory re-study of credit	The student has the material at the level of elementary recognition and reproduction of individual facts, elements, objects
In particular, criteria for assessing practical skills in disciplines	
"Completed"	The student independently demonstrates the performance of practical skills, admitting some inaccuracies, which he quickly corrects, has theoretical knowledge (knows the method of performing practical skills, indications and contraindications, possible complications, etc.)
"Completed"	The student corresponds to a high (creative) level of competence: the student shows special creative abilities, without errors demonstrates the implementation of practical skills and has systematic theoretical knowledge (knows the methods of practical skills, indications and contraindications, possible complications, etc.) and has ability to make decisions in unusual situations.
"Completed"	The student demonstrates the implementation of practical skills, making some mistakes that can be corrected by their teacher, has satisfactory theoretical knowledge (knows the basic principles of methods of practical skills, indications and contraindications, possible complications, etc.).
"Failed"	The student cannot independently demonstrate practical skills (performs them, making gross errors), does not have a sufficient level of theoretical knowledge (does not know the methods of practical skills, indications and contraindications, possible complications, etc.).

The final mark is given only to those students who passed final conclusion.



Those students who haven't fulfilled the requirements of the studying program (curriculum) have got an Fx mark if they were allowed to the credit but did not pass it. A mark F is given to students who are not allowed to pass the credit.

Marks "Fx" or "F" ("unsatisfactory") are given to students who are not credited with the study of the discipline.

After completing the study, the teacher puts the student's "credit" in accordance with the scales in the credit book and fills in the registration form.

### **Elimination of academic debt (working off).**

Missed classes or unsatisfactory marks could be worked off to the teacher of the group or to the duty teacher. All works off and consultations are taken daily from 15:00 to 17:00 and on Saturdays in accordance with the "Regulations on the procedure for students work off" from 07.12.2015 № 415.

### **3.2. List of questions for credit:**

1. Problem and methods of pathology service and its place in the world system of Public Health. The basic pathology documentation. Basic principles of Pathology service organization in hospitals.
2. Investigation methods of biopsy, operation material, placenta. Participation in process of biopsy investigation.
3. Analysis and estimation of biopsy results. The role of biopsy in complex patient's examination and treatment.
4. Autopsy (of adult, newborns, stillborn, foetus). Significance of an autopsy as reliable source of information about cause of death of a patient, and death-rate of population, about diagnosis and treatment quality. Autopsy procedure and autopsy documentation. Rules of official registration of the medical certificate of death certificate of perinatal death. Information about International classification of disease – ICD-X (1995).
5. Work with ICD X according to the pathology diagnosis of autopsy. Autopsy protocol registration procedure.

6. Structure of the pathology diagnosis and its comparison with the clinical diagnosis. Pathology expertise. Categories of a difference of pathology and clinical diagnoses. Pathology epicrisis.
7. Features of the course, variability of diseases. Pathomorphosis of diseases (natural and induced).
8. Pathology of diagnostic and therapeutic procedures (iatrogeny).
9. Preparation and holding of a meeting of the medical control commission, the commission for the study of fatal consequences and a clinical and anatomical conference.
10. Deontological and ethical aspects in Pathology practice.

### **3.5. Rules for appealing the assessment**

OD is announced to the applicant immediately after the final lesson. If the applicant does not agree with the assessment, he can announce it to the teacher of the academic group. In this case, the applicant has the opportunity to re-take the test of the commission, consisting of the head of the department, head teacher and lecturer of the academic group.

## **4. DISCIPLINE POLICY:**

Students are required to systematically master the theoretical knowledge and practical skills provided by the curriculum of the discipline; always have a neat appearance (lab coat, medical cap); turn off mobile devices during practical classes; comply with the rules of procedure of KhNMU.

During classes it is allowed: to leave the classroom for a short time if necessary and with the permission of the teacher; drink soft drinks; take photos of presentation slides; take an active part in the class; it is forbidden: to 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; to use obscene language or use words that offend the honour and dignity of colleagues and faculty; gamble; to damage the material and technical equipment of the university

(damage inventory, equipment; furniture, walls, floors, litter the premises and territories); shouting, listening to loud music in classrooms and even in halls of the department during classes. Students are not allowed to be late for practical classes and lectures. Practical classes involve active participation in the discussion in the classroom, students should be ready to understand the material in detail, ask questions, express their opinion, discuss. During the discussion are important: respect for colleagues, tolerance for others and their experience, receptivity and impartiality, the ability to disagree with the opinion, but to respect the personality of the opponent, careful argumentation of his opinion and the courage to change their position under the influence of evidence, self-expression avoids unnecessary generalizations, describes his feelings and formulates his wishes based on their own thoughts and emotions, mandatory acquaintance with the original sources. A creative approach in its various manifestations is welcome. Students are expected to be interested in participating in local, national and international conferences, competitions and other events in the subject profile. Attendance of practical classes and lectures is compulsory.

During the practical class, the group monitor appoints the student-on-duty, who must provide the group with microscopes and microspecimens according to the lesson topic and is responsible for cleanliness and order in the classroom and storage of equipment, micro- and macrospecimens.

During the control of students' knowledge cheating is forbidden, use of cellphones or other electronic devices, various software, use of hints.

Students with special needs must warn the teacher before the start of classes, at the request of the student it can be done by the monitor of the group. If a student has any questions, he can always solve it first of all with the teacher or head of the department, if necessary.

**Occupational Health:**

The first lesson of the course will explain the basic principles of labor protection by conducting appropriate training. It is expected that everyone should know where the nearest evacuation exit is, where the fire extinguisher is, how to use it, etc.

Plagiarism and academic integrity:

The Department of Pathological Anatomy maintains zero tolerance for plagiarism. Male and female students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

## **5. ACADEMIC INTEGRITY**

During the control of students' knowledge, writing, use of various software, tips, use of mobile phones or other electronic devices are not allowed.

The Department of Pathological Anatomy maintains zero tolerance for plagiarism. Students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

## **6. SUGGESTED TEXT-BOOKS:**

- 1) Biopsy-autopsy course (Clinical pathology): [text-book for practical classes in clinical pathology for English medium medical students] / [I.V. Sorokina, V.D. Markovsky, G.I. Gubina-Vakulik and others]; edited by I.V. Sorokina, V.D. Markovsky. – Kharkiv: KhNMU, 2012. – 60 p.
- 2) Pathomorphology: textbook / I.V. Sorokina, V.D. Markovskiy, D.I. Halata et al. ; edited by I.V. Sorokina, V.D. Markovskiy, D.I. Halata. – Kyiv : AUS Medicine publishing, 2019. – 320 p. + 2 colour inserts (8p. + 12 p.).
- 3) Robbins & Cotran Pathologic Basis of Disease, 10<sup>th</sup> Edition / Elsevier, 2017. – 952 p.
- 4) Oral and Maxillofacial Pathology / Brad W. Neville & Douglas D. Damm & Carl M. Allen & Angela C. Chi / Elsevier, - 2015. - 928 p
- 5) Oral Pathology: Clinical Pathologic Correlations, 6th Edition / Joseph A. Regezi & James J. Sciubba / 2016. - 492 p.
- 6) Textbook of Pathology Harsh Mohan // Jaypee Brothers Medical Publishers (P) Ltd. – India, 2010. – 933 p.
- 7) Anderson's Pathology / Edited by John M. Kissane. The C.V. Mosby Company. – Toronto – Philadelphia, 1990. – 2196 p.