

**PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND
MEDICINE"**

Department of Fundamental Disciplines

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

"SECTINAL COURSE"

LEVEL OF HIGHER EDUCATION Second (master's) level

DEGREE OF HIGHER EDUCATION Master's degree

BRANCH OF KNOWLEDGE 22 Healthcare

SPECIALTY 222 Medicine

Reviewed and approved
at the meeting of the Academic Council
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Kiev 2016

Working program of education discipline Sectional Course for the preparation of students of higher education of the second (master's) level of higher education in specialty 222 Medicine.

INTRODUCTION

The study program of the academic discipline "Sectional Course" is compiled for students of the 3th year of the field of knowledge 22 "Health care" specialty 222 "Medicine"

Description of the academic discipline

Name of indicators	Field of knowledge, direction of training, educational qualification level	Characteristic academic discipline
		Full-time teaching
ECTS credits – 0,5	Branch of knowledge 22 "Health care"	Full course
	Specialty : 222 "Medicine"	
	Qualifications of the educational "Master of Medicine"	
the total number of 15 hours	Form of education: daytime Type of discipline: Mandatory	A year of training
		III
		Semester
		VI, VII
		Lectures
		0
		Practical
		10 hours
		Individual work
		5 hours
		Type of control:
		Diff. settlement

The subject of study of the discipline "Sectional course" is a method of clinical anatomical analysis of biopsy, operating and sectional material and principles of diagnosis, technology of opening and publication of pathoanatomical documentation. During the course, students get acquainted with the structure of the pathoanatomical service, which is an integral part of the health care system in Ukraine.

Interdisciplinary links: Based on the study of students of medical biology, anatomy, histology and embryology, integrates with these disciplines; The basics of studying students of physiology, biochemistry, pathological physiology,

propaedeutics of clinical disciplines, which involves the integration of teaching with these disciplines and the formation of skills to apply knowledge from a sectional course in the process of further education and professional activities.

PURPOSE AND OBJECTIVES OF THE COURSE

The main task of studying the discipline "Sectional course" is: formation of clinical and morphological thinking in students. The main purpose of the sectional course - mastering by students by the method of clinical and anatomical analysis of biopsy, operating and sectional material and principles of diagnosis of diagnosis, technique of opening and publication of pathoanatomical documentation. During the course, students get acquainted with the structure of the pathoanatomical service, which is an integral part of the health care system in Ukraine. Pathoanatomical service is aimed at improving the quality of medical and diagnostic and preventive work and its improvement.

The purpose of teaching discipline "Sectional course" follows from the goals of the educational and professional program of preparing for the second educational (master's) level of higher education and are determined by the content of those systematic knowledge and skills, which should master the doctor. Knowledge that students receive from discipline "sectional course" are basic disciplines that provide natural and scientific and professional-practical training. Knowledge received by students is an important component of the professional practical training of a doctor, with the main task of studying this course - to complete the process of forming clinical and morphological thinking.

COMPETENCIES AND LEARNING OUTCOMES

As a result of learning of the discipline student have to

know:

- tasks, functions, methods of operation of the pathoanatomical service, its role in the health care system;
- normative provisions on the organization and structure of the pathoanatomical service;
- rules for registration of a medicinal evidence of death, a medical certificate of perinatal death, a protocol of pathoanatomical research;
- principles of formulation and structure of pathoanatomical diagnosis;
- methodology for conducting an opening and peculiarities of the design of pathoanatomical documentation in cases of death caused by therapeutic, infectious, surgical, obstetric and gynecological pathology;
- methodology and peculiarities of conducting a deceased child, fetus, newborn and design of pathoanatomical documentation in cases of death, which is

associated with perinatal pathology;

- sequence and methodology for preparing and conducting a clinical and pathoanatomical conference;
- rules for the collection of material for biopsy research and the method of its conduct;

to be able:

- on the basis of clinical and morphological data, conduct a clinical and anatomical analysis in a particular case of death and formulate a pathoanatomic diagnosis;
- to write a doctrinal certificate of death and a medicinal certificate of perinatal death and encode nosological units in accordance with the international classification of illness of 10 revision (hereinafter referred to as MKX-10);
- to formulate clinical and pathoanatomic epicrisis and arrange a protocol of pathoanatomical study;
- to assess the discrepancy between clinical and pathological anatomical diagnoses;
- compile a plan for conducting a clinical and pathoanatomical conference;
- make a plan for the performance of a clinician doctor, a pathologist, a reviewer on a clinicopathological anatomical conference in a particular case of death;
- to evaluate the results of a biopsy study in various pathological processes.

To master the skills:

- dressing and removing anti plague costume;
- fence of biological material in the presence of a deceased infectious disease or suspicion of it;
- preparation of biopsy (operational) material for further morphological research.

In accordance with the requirements of the standard, the discipline provides students with the acquisition of competence:

- *integral*: - Ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves microbiological research and / or implementation of an innovation and is characterized by complexity and uncertainty of conditions and requirements.
- *common*: - Ability to apply knowledge in practical situations. Ability to effectuate selfregulation, to have a healthy lifestyle, ability to adapt and act in a new situation. Ability to choose a communication strategy; ability to work in a team; interpersonal interaction. Skills in the use of information and communication technologies. Ability to abstract thinking, analysis and synthesis, the ability to learn and to be trained modernly. Definiteness and persistence in terms of tasks and responsibilities. Ability to act socially responsibly and with public awareness. The desire to preserve the

environment. Universal competencies that do not depend on the subject area, but are important for the successful further professional and social activities of the applicant in various fields and for his personal development.

- *special* (professional, subjective): - Ability to evaluate the results of laboratory and instrumental research. Ability to carry out sanitary and hygienic preventive measures. Ability to plan preventive and anti-epidemic measures for infectious diseases. Ability to analyze of the state, social, economic and medical information. Ability to assess the impact of socio-economic and biological determinants on the health of the individual, family, population. Ability to apply scientifically substantiated psychological methods of effective work with colleagues, medical staff, patients and their relatives, readiness to interact with other people. Awareness of the individual in the culture of other peoples.

Matrix of competencies

Competence	Knowledge	Skills	Communication	Autonomy responsibility
General competences				
Ability to apply knowledge of pathomorphological in practical situations				
Special competences				
Ability to evaluate results autopsy and methods in vivo diagnosis of diseases	To have specialized knowledge of structural touring background of diseases, to know standard methods of autopsy and lifelong diagnosis of diseases	To be able to analyze the structural basis of human diseases for in-depth study of the fundamentals of medicine and the clinical picture of diseases with the subsequent use of knowledge in the practice of medicine	It is reasonable to evaluate the results of autopsy and methods of lifelong diagnosis of diseases	To be responsible for deciding to evaluation autopsy results in vivo disease diagnosis

THE STRUCTURE OF PRACTICAL CLASSES

No	Topic	Hours
1.	PROBLEMS AND METHODS OF PATHOANATOMICAL SERVICE OF UKRAINE (ORDER NO. 81 DATED 12.05.1992 G. MOH OF UKRAINE "ON DEVELOPMENT AND IMPROVEMENT OF PATHOANATOMICAL SERVICE IN UKRAINE" AND THE ORDER NO 179 DATED 29.03.2006 G. MOH OF UKRAINE "ON APPROVAL OF INSTRUCTIONS ON DETERMINING THE CRITERIA FOR PRENATAL PERIOD, LIVE BIRTHS AND MERTINATIONAL. THE PROCEDURE OF REGISTRATION OF LIVE BIRTHS AND STILLBIRTHS"). REGULATIONS ON THE ORDER OF DISSECTION OF CORPSES IN TREATMENT-AND-PROPHYLACTIC INSTITUTIONS. CATEGORIES OF DEATHS SUBJECT TO AUTOPSY. THE MAIN PATHOLOGICAL DOCUMENTATION.	2
2.	STRUCTURE AND PRINCIPLES OF CLINICAL AND PATOLOGOANATOMICHESKOE DIAGNOSES, THEIR COMPARISON. THE CONCEPT OF NOSOLOGICAL UNIT, UNDERLYING DISEASE, COMPLICATION OF THE UNDERLYING DISEASE, CONCOMITANT DISEASES, COMBINED UNDERLYING DISEASE (COMPETING, ASSOCIATED, BACKGROUND).	2
3.	RULES OF REGISTRATION OF MEDICAL DEATH CERTIFICATE. CATEGORY DISCREPANCIES OF THE DIAGNOSES (P IP 2P 3). THE IATROGENIC ("THE SECOND DISEASE"). MEDICAL ERRORS, THEIR CAUSES. THE DECISION OF SITUATIONAL PROBLEMS ON CLINICAL AND ANATOMICAL ANALYSIS.	1
4.	METHOD OF BIOPSY AND OPERATIONAL RESEARCH MATERIAL. THE DECISION OF SITUATIONAL PROBLEMS ON CLINICAL AND ANATOMICAL ANALYSIS.	2
5.	DEFINITION OF VARIABILITY. FEATURES OF COURSE OF DISEASES, THE PREPARATION AND HOLDING OF MEETINGS OF THE MEDICAL-CONIROL COMMISSION, A CLINICAL-PATANATOMY CONFERENCE. THE DECISION OF SITUATIONAL PROBLEMS ON CLINICAL AND ANATOMICAL ANALYSIS.	2
6.	Credit.	1
	TOTAL	10

THE STRUCTURE OF INDEPENDENT WORK OF STUDENTS (IWS)

No	Topic	Hours
	PREPARATION FOR PRACTICAL CLASSES - THEORETICAL PREPARATION AND WORKING OFF THE PRACTICAL SKILLS.	1
	ELABORATION OF TOPICS THAT ARE NOT INCLUDED IN THE LESSON PLAN:	
1.	TASKS AND METHODS OF PATHOANATOMICAL SERVICE.	1

	STRUCTURE AND LOGIC OF DIAGNOSIS. CLINICAL AND ANATOMICAL ANALYSIS METHOD.	
2.	PROCEDURE AND TECHNIQUE OF CARRYING OUT IN THERAPEUTIC AND PROPHYLACTIC INSTITUTIONS. PROTOCOL OF PATHOANATOMICAL SECTION AND ITS PARTS. PATHOANATOMIC EPICRISIS AND TANATOGENESIS. CLINICAL ANATOMICAL ANALYSIS OF CHANGES IN DEATH FROM DISEASES OF THE CARDIOVASCULAR SYSTEM.	1
3.	CAUSES OF DEATH. MEDICAL CERTIFICATE OF DEATH, RULES FOR ITS DESIGN. DIRECT CAUSE AND DEATH MECHANISM: DEFINITIONS, TYPES, SUBSTANTIATION. CLINICAL ANATOMICAL ANALYSIS OF CHANGES FROM THE SIDE OF ORGANS AND SYSTEMS IN DEATH FROM DISEASES OF RESPIRATORY ORGANS, KIDNEYS AND GASTROINTESTINAL TRACT.	1
PREPARATON FOR THE FINAL CONTROL		1
	TOTAL:	5

THE LIST OF THEORETICAL QUESTIONS FOR PREPARATION OF STUDENTS FOR THE FINAL CONTROL

1. Tasks and methods of pathoanatomical service.
2. The current structure of the pathoanatomical service, its difference from the old one.
3. Regulations on the procedure for opening corpses in medical establishments (order N 81 MOH of Ukraine).
4. List which categories of dead are subject to mandatory autopsy.
5. Structure of clinical and pathoanatomical diagnoses.
6. Determination of the underlying disease, complication, comorbidity.
7. Principles of clinical and pathoanatomical diagnosis
8. Combined underlying disease (competing, combined, background).
9. "Second" ("iatrogenic") diseases. List what conditions belong to this group of diseases.
10. Scheme of the protocol of pathological anatomical study of a corpse.
11. Clinical and anatomical analysis. Clinical-anatomical epicrisis (the scheme of its writing, which should be reflected in it).
12. Regulations on clinical and pathoanatomical conferences (order N 81). Medical errors, their causes.
13. The dissection of a corpse, the purpose pursued by an autopsy. Methods of opening corpses, advantages of the Shore method.
14. What is a biopsy. Types of biopsies depending on the method of taking the material, the features of taking it, as well as depending on the timing of the response.
15. Operating material. Rules for referral to histological examination.
16. Rules for sending biopsy material for histological examination.

17. Fixing liquids: preparation of 10% neutral formalin. Formalin substitutes.
18. Medical certificate of death, its structure, rules of registration and issuance.

METHODS OF CONTROL

Current control is performed based on the control of theoretical knowledge, skills and abilities in practical classes. Independent study students are assessed in practical classes, and is an integral part of the final grade of the student. Current control is performed during the training sessions and aims at checking the assimilation of students learning the material. Forms of current control are:

- a) test tasks with a choice of one correct answer, with the definition of the correct sequence of actions, with determination of the conformity, defining the specific portion of the photo or diagram ("detection");
- b) individual oral questioning, interview;
- c) the solution of typical situational tasks;
- d) control of practical skills;
- e) the solution of typical problems of genetics and medical genetics.

Grades on the national scale ("excellent" - 5, "good" - 4, "satisfactory" - 3, "unsatisfactory" - 2), received by students, are displayed in the journals of attendance and academic group performance.

Final control

The final control is the form of a differentiated credit at the end of the 1st semester and an exam at the end of the 2nd semester upon completion of the course of medical biology.

The semester exam is a form of final control of mastering by the student of theoretical and practical material on academic discipline. The final control (exam) is carried out at the last control lesson.

Students are admitted to the FC who have attended all the classes provided by the curriculum in the discipline and while studying the module scored the number of points not less than the minimum (72 points). A student who, for good or bad reasons, has missed classes, is allowed to rework academic debt for a certain period of time.

Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student scores are set on a 4- point (national) assessment scale. This takes into account all types of work provided by the discipline program. The student must receive a score on each topic. Scores on the traditional scale are converted into points.

The final assessment of the current academic activity is the arithmetic mean

(the sum of scores for each lesson is divided by the number of lessons per semester) and translated into points according to Table.

Conversion of the average score for the current activity into a multi-point scale (for disciplines completed by exam)

4- point scale	120- point scale	4- point scale	120- point scale	4- point scale	120- point scale	4- point scale	120- point scale
5	120	4,45	107	3,91	94	3,37	81
4,95	119	4,41	106	3,87	93	3,33	80
4,91	118	4,37	105	3,83	92	3,29	79
4,87	117	4,33	104	3,79	91	3,25	78
4,83	116	4,29	103	3,74	90	3,2	77
4,79	115	4,25	102	3,7	89	3,16	76
4,75	114	4,2	101	3,66	88	3,12	75
4,7	113	4,16	100	3,62	87	3,08	74
4,66	112	4,12	99	3,58	86	3,04	73
4,62	111	4,08	98	3,54	85	3	72
4,58	110	4,04	97	3,49	84	<3	Not enough
4,54	109	3,99	96	3,45	83		
4,5	108	3,95	95	3,41	82		

The maximum number of points that a student can collect for current educational activity during semester in order to be admitted to the exam is 120 points.

The minimum number of points that a student can collect for current educational activity during semester in order to be admitted to the exam is 72 points.

Calculating of the number of points is based on obtained marks of student according to traditional scale while learning subject during the semester, by calculating the arithmetic mean (AM) that is rounded to two signs after comma.

Evaluation of independent work of students.

Independent work of students, which is provided by the topic of the lesson together with the classroom work, is evaluated during the current control of the topic in the relevant lesson. Assimilation of topics that are submitted only for independent work is checked during the final module control.

Evaluation of final control

The maximum number of points that a student can score during the exam is 80 points.

The final control is considered credited if the student scored at least 60% of the maximum number of points (for a 200-point scale - at least 50 points). Determining the number of points that a student scored in the discipline: the number of points that a student scored in the discipline is defined as the sum of points for the current academic activity (Table 1) and for the final control (diff.credit, exam) (Table 3).

Table 3. Scale of assessment of differentiated (exam) credit:

Traditional scale	Points
"5"	70-80
"4"	60-69
"3"	50-59

The final written work is performed in the form of a test.

Topics 1-5: Classroom work - score from 2 to 5 for each topic.

Topic 6: Credit (FC): practical training, theoretical training.

Final module control 1 is evaluated from 50 to 80 points and consists of: Answer to 2 theoretical questions of 20 points for each = 40 points. Answer to 2 practical tasks of 20 points for each = 40 points.

Amount: 80.

Scale of assessment:

Traditional scale	Points
"5"	70-80
"4"	60-69
"3"	50-59

The example of a practical task:

PROBLEM # 1

Patient A., 68 years old.

CLINICAL DIAGNOSIS: Acute violation of cerebral circulation in pool of middle cerebral artery hemorrhagic type on the background of atherosclerosis of cerebral vessels. Atherosclerosis of the aorta, the coronary arteries. Left-side hemiparesis. Pressure sores of the sacrum. Gostation bilateral pneumonia. Postinfarction cardiosclerosis. Cardiovascular insufficiency II-B.

PATHOLOGICAL diagnosis of a Hematoma in the right hemisphere of the brain. Cysts of the white matter of the right hemisphere. Chronic glomerulonephritis with secondary renal zamordowany (weight of the left kidney is 80 g, the right - 85g), netrogena hypertension (the thickness of the wall of the left ventricle is 2.5 cm, weight of heart, 500 grams). Pressure sores of the sacrum. Congestive hyperemia and parenchymatous degeneration of internal organs. Postinfarction cardiosclerosis. Gostation bilateral pneumonia. Adenoma of the prostate gland. Pediculosis.

The **CONCLUSION ABOUT the CAUSE of DEATH:** the Death of the patient A., 68 years old, who suffered from chronic glomerulonephritis with secondary renal zamordowany, was caused by bleeding in the brain.

TEACHING CARD CLASSES

1. to Determine the clinical diagnosis:

- 1) underlying disease;
- 2) complications;

3) comorbidities.

In the case that the underlying disease combined, indicate competing, associated, background of the disease.

2. To determine in postmortem diagnosis:

1) underlying disease;

2) complications;

3) comorbidities.

In the case that the underlying disease combined, indicate competing, associated, background of the disease.

3. To correlate clinical and pathoanatomical diagnoses on the basic disease, complications, concomitant diseases.

4. To reveal the incorrectness of the formulation of the clinical diagnosis if they were.

5. To fill in the medical certificate of death according to pathology diagnosis.

Circumstance of admission to the final control

1. Semester control at the end of the 1st semester is provided in the form of a differential credit. (Table 2) Provides a final score on a 120-point scale as the sum of scores for the current control of knowledge (oral examination, written survey, tests, verification of identification of micropreparations, abstracts), the results of 2 content modules.
2. Students are allowed to take the differentiated credit, exam only if there is no debt for the implementation of the curriculum.

Course policy

The organization of the educational process is carried out with the use of the European Credit Transfer System (ECTS) to assess student performance. The points gained in the current survey, independent work and points of the final control are credited. This must take into account the student's presence in class and his activity during practical work. Inadmissible: absences and late classes; use of a mobile phone, tablet or other mobile devices during the lesson (except for the cases provided by the curriculum and methodical recommendations of the teacher); copying and plagiarism; untimely performance of the task, the presence of unsatisfactory grades for 50% or more of the submitted theoretical and practical material.

RECOMMENDED LITERATURE

1. Harrison's Manual of medicine.-17thed.- /Anthony S. Fauci, Eugene Braunwald, Dennis L. Kasper, and others.- New York, Chicago, San Francisco, London, Madrid, Mexico City, New Delhi, Sydney, Toronto.- 2008.
2. Robbins Pathologic basic of disease. - 6thed.-/ Ramzi S. Cotnar, Vinay

- Kumar, Tucker Collins. - Philadelphia, London, Toronto, Montreal, Sydney, Tokyo. -1999
3. Ramzi S. Kotran, Vinay Kumar, Stanley S. Robbins. Robbins Pathologic Basis of Disease, W.B. Saunders Company, USA, 1994
 4. Anderson's Pathology// Edited by Jonh M. Kissane. The C.V. Mosby Company. - Toronto - Philadelphia, 1990.
 5. A.K.Zagorulko. Short lectures on pathology (pathological anatomy). - Simferopol: 2 ed. CSMU, 2002. 2.Gozhenko A.I., Gurcalova I.P., General and clinical pathophysiology/ Study guide for medical students and practitioners. - Odesa, 2003.
 6. Thomas C. Macropathology. - B.C. Decker Inc. - Toronto - Philadelphia, 1990.
 7. Thomas C. Histopathology. - B.C. Decker Inc. - Toronto -Philadelphia, 1989.

Approved:



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