

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Surgery #1
Academic year 2021-2022

**SYLLABUS OF THE COURSE
«CARDIOVASCULAR SURGERY»**

Form of education: Basic course, full-time

Field of knowledge: 22 Health care

Specialty: 222 Medicine

Specialization (if available):

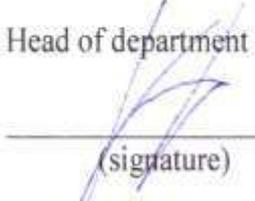
Educational and professional program of the second (masters) level of higher education

Course: 6

The syllabus of the discipline was approved at
the meeting Department of Surgery №1

Protocol from
"28" 08 2021 № 1

Head of department



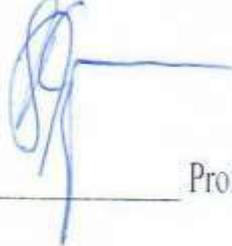
(signature) prof. V.V. Boyko
(surname and initials)

« 28/ » August 2021

Approved by the methodical commission of
KhNMU on problems of surgical profile

Protocol from
August 30, 2021 № 1

Head



Professor VO Sypliviy

August 30, 2021

SYLLABUS DEVELOPERS:

1. Boyko Valeriy Volodymyrovych – Academician of the National Academy of Sciences of Ukraine, Doctor of Medical Sciences, Professor, Head of the Department of Surgery #1.
2. Goloborodko Mykola Mykolayovych - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1.
3. Shevchenko Oleksandr Mykolayovych - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1.
4. Kirienko Denys Oleksandrovych - Lecturer of the Department of Surgery #1.

INFORMATION ABOUT TEACHERS TEACHING THE EDUCATIONAL COMPONENT

1. BOYKO V.V. - Doctor of Medical Sciences, Professor, Head of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-303-48-55, e-mail: vv.boiko@knmu.edu.ua
2. HRYGOROV Yu.B. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 099-377-32-72, e-mail: yb.hryhorov@knmu.edu.ua
3. TARABAN I.A. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-302-79-50, e-mail: ia.taraban@knmu.edu.ua
4. ZAMIATIN P.M. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-301-78-88, e-mail: pm.zamiatin@knmu.edu.ua
5. KRASNOYARUZHS'KY J.A.G. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. Tel: 067-562-33-10, e-mail: ah.krasnoiaruzhskiyi@knmu.edu.ua
6. PRASOL V.O. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization in vascular surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-401-12-31, e-mail: vo.prasol@knmu.edu.ua
7. SAVVI S.O. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-301-50-60, e-mail: so.savvi@knmu.edu.ua
8. HROMA V.H. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery, endoscopy. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 066-790-68-35, e-mail: vh.hroma@knmu.edu.ua
9. SUSHKOV S.V. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 067-570-79-49, e-mail: sv.sushkov@knmu.edu.ua
10. IVANOVA Y.V. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 067-475-74-20, e-mail: yv.ivanova@knmu.edu.ua
11. KRYVOROTKO I.V. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-303-73-37, e-mail: yv.kryvorotko@knmu.edu.ua
12. SMACHYLO R.M. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-301-18-73, e-mail: rm.smachylo@knmu.edu.ua
13. YEVTUSHENKO D.O. - Doctor of Medical Sciences, Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 067-584-54-10, e-mail: do.yevtushenko@knmu.edu.ua
14. HONCHARENKO L.Y. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 066-442-65-99, e-mail: ly.honcharenko@knmu.edu.ua
15. SHCHERBAKOV V.I. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-615-48-30, e-mail: vi.shcherbakov@knmu.edu.ua
16. KUZNETSOV O.V. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-781-76-05, e-mail: ov.kuznetsov@knmu.edu.ua
17. YEFIMOV D.S. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>, Tel: 050-632-79-86, e-mail: ds.yefimov@knmu.edu.ua

18. MINUKHIN D.V. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-965-40-05, e-mail: dv.minukhin@knmu.edu.ua
19. TYMCHENKO M.E. - Doctor of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-400-08-32, e-mail: my.tymchenko@knmu.edu.ua
20. LAZY`RS`KY`J V.O. - Doctor of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-576-66-60, e-mail: vo.lazyrskiyi@knmu.edu.ua
21. PISOTSKY O.M. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery, cardiovascular surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-301-44-45, e-mail: om.pisotskiy@knmu.edu.ua
22. BUCHNEVA O.V. - Doctor of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-145-12-51, e-mail: ov.buchnieva@knmu.edu.ua
23. GOLOBORODKO M.M.- Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-740-22-70, e-mail: mm.goloborodko@knmu.edu.ua
24. DOTSENKO D.G. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-419-74-20, e-mail: dh.dotsenko@knmu.edu.ua
25. TOKAREV A.V. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-309-44-94, e-mail: av.tokariyev@knmu.edu.ua
26. SHEVCHENKO O.M. - Candidate of Medical Sciences, Associate Professor of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-644-81-11, e-mail: om.shevchenko@knmu.edu.ua
27. LELYCYA A.V - Lecturer of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 099-001-01-39, e-mail: av.lelytsia@knmu.edu.ua
28. LEBID` P.B. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-051-51-48, e-mail: pb.lebid@knmu.edu.ua
29. KULIK I.A. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-297-77-33, e-mail: ya.kulyk@knmu.edu.ua
30. MIROSHNICHENKO D.O. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-205-27-51, e-mail: do.myroshnychenko@knmu.edu.ua
31. CHERNYAEV M.S - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 050-615-45-55, e-mail: ms.cherniaev@knmu.edu.ua
32. KOROLEVSKA A.Yu. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 067-379-31-18, e-mail: ay.bodrova@knmu.edu.ua
33. ZAMIATIN D.P.- Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 063-278-24-28, e-mail: dp.zamiatin@knmu.edu.ua
34. LAVRINENKO A.S. - Lecturer of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-724-50-55, e-mail: as.lavrynenko@knmu.edu.ua

35. MYASOEDOV KV - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 095-011-11-41, e-mail: kv.miasoedov@knmu.edu.ua
36. V'YUN S.V. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-095-55-54, e-mail: sv.viun@knmu.edu.ua
37. KIRIENKO D.O. - Lecturer of the Department of Surgery #1, specialization surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 067-750-18-73, e-mail: do.kiriienko@knmu.edu.ua
38. BITYAK S.Yu. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 096-531-75-76, e-mail: sy.bityak@knmu.edu.ua
39. MUSHENKO E.V. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 067-575-63-75, e-mail: yv.mushenko@knmu.edu.ua
40. SOCHNEVA A.L. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 099-770-75-20, e-mail: al.sochnieva@knmu.edu.ua
41. RIGA A.S. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 063-328-37-77, e-mail: as.riha@knmu.edu.ua
42. PONOMAROVA K.V. - Candidate of Medical Sciences, Lecturer of the Department of Surgery #1, specialization in surgery. <https://knmu.edu.ua/departments/kafedra-hirurgiyi-1/>,
Tel: 066-224-96-79, e-mail: kv.ponomarova@knmu.edu.ua

Contact phone and E-mail :. tel. (057) 349-41-51, khnmusurgery1@ukr.net

Off-line consultations: schedule and venue according to the schedule of the department.

Online consultations: schedule and venue by prior arrangement with the teacher.

Locations: classes are in the conditions of the State Institution "V.T. Zaitsev Institute of General and Emergency Surgery of the National Academy of Medical Sciences of Ukraine"

INTRODUCTION

Educational program of higher education of Ukraine, second (master's) level, educational qualification awarded - master's degree, field of knowledge - 22 Health care, specialty 222 "Medicine" is based on the Law of Ukraine "On Higher Education" and the resolution of the Cabinet of Ministers of Ukraine 01.02.2017 № 53 "On amendments to the resolution of the Cabinet of Ministers of Ukraine dated 29.04.2015 № 266", in accordance with the order of the Ministry of Education and Science of Ukraine dated 01.06.2016 № 600 "On approval and implementation of Methodological recommendations for the development standards of higher education ".

The course program determines the prerequisites for access to training, orientation and main focus of the program, the amount of ECTS credits required for a master's degree, a list of general and special (professional) competencies, normative and variable content of training, formulated in terms of learning outcomes and control requirements quality of higher education

The department accepts qualified students of any race, national or ethnic origin, sex, age, people with special needs, any religion, sexual orientation, gender, veteran status or marital status for all rights, privileges, programs and activities, provided to university students.

Course description (abstract) According to modern ideas, surgery studies diseases that are not amenable to therapeutic treatment, methods of disease diagnosis, tactics of treatment of patients and prevention. Surgery is closely related to the basic sciences such as anatomy, physiology, human histology, etc. Given all these basic sciences of medicine, the doctor is often on the verge of life and death of the patient.

It is important during the study to form academic training in basic and clinical biomedical sciences and prepare graduates for the professional activity of a doctor in office by acquiring general and special competencies, the scope of which is described by certain lists of syndromes and symptoms of diseases, emergencies, physiological conditions and diseases requiring special tactics of patient management; laboratory and instrumental research, medical manipulations, surgical interventions, labor, forensic and military expertise.

The subject of the discipline "surgery" is the health care of patients over 18 years of age, prevention, diagnosis and treatment of surgical diseases.

This course focuses on solving the main problems of planned surgery. The program covers topics related to the most common diseases in the fields of lung surgery, cardiovascular system and endocrine pathology. Clinical experience can be gained during practical classes in the leading institutions of the city - the Institute of General and Emergency Surgery. prof. V.T. Zaitsev and ambulance hospital. prof. O.I. Meshchaninov, according to the schedule. During the course, students have the opportunity to participate in the curation and demonstration of patients with various pathologies, as well as the development of practical skills during classes in phantom classes of ASIQE KhNMU. That is, the course covers the main both practical and theoretical aspects of the future doctor.

Interdisciplinary links :

Prerequisites The study of the discipline involves the prior mastering of disciplines in anatomy, topographic anatomy, general surgery and other fundamental disciplines. Especially the principles of evidence-based medicine, emergency and urgent medical care, as well as to have practical skills in caring for patients with a surgical profile and their management in outpatient and inpatient settings.

Post-requisites The main provisions of the discipline should be applied in the study of related disciplines during the 5th year of study, is the basis for preparation for the licensing exam SSQE.

Link to the discipline page in MOODLE

<http://31.128.79.157:8083/course/view.php?id=804>

<http://31.128.79.157:8083/course/view.php?id=803>

<http://31.128.79.157:8083/course/view.php?id=233>

1. The purpose and objectives of the discipline.

1.1. The purpose of studying the discipline to provide training for highly qualified specialists in the field of medicine, namely, in surgery, able to solve complex problems of diagnosis, treatment and prevention of cardiac surgical diseases.

1.2. The main objectives of the discipline are for students to acquire competencies in accordance with the general and professional competencies of the educational-professional program "Medicine" of the first level of higher education in the specialty 222 Medicine (discipline "Surgery")

1.3. Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the OPP and Standard).

• Integrated competencies:

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 research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements.

• General competencies:

ability to abstract thinking, analysis and synthesis, 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 of using information and communication technologies; determination and persistence in the tasks and responsibilities; ability to act socially responsibly and consciously.

• Professional competencies in the field of planned thoracic, cardiovascular and endocrine surgery.

Survey skills; ability to determine the necessary 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 necessary tactics and methods of surgical operations in a modern format; maintenance of the postoperative period; rehabilitation regime, the nature of nutrition in these diseases; ability to diagnose emergencies; ability to determine tactics and skills of emergency medical care; skills of performing medical manipulations; ability to plan and carry out preventive measures, including for endocrine diseases; ability to determine the tactics of management of persons subject to dispensary supervision; ability to keep medical records.

The study of this discipline forms in students of social skills:

• communicativeness (implemented through: the method of working in groups and brainstorming during the analysis of clinical cases, the method of presenting the results of independent work and their protection in the group),

• teamwork (implemented through: group work method and brainstorming during the analysis of clinical cases),

• conflict management (implemented through: business games),

• time management (implemented through: the method of self-organization during classroom work in groups and independent work),

• leadership skills (implemented through: the method of presenting the results of independent work and their defense in the group).

1.3.1. The study of the discipline provides students with the acquisition of competencies:

Integral:

Ability to solve complex specialized problems and practical problems associated with injuries and diseases of the musculoskeletal system; integrate knowledge and solve complex issues, formulate judgments on insufficient or limited information; clearly and unambiguously communicate their conclusions and knowledge, reasonably substantiating them, to the professional audience.

General:

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 of using information and communication technologies; certainty and persistence in terms of tasks and responsibilities; ability to act socially responsibly and consciously.

Special professional:

Survey skills; ability to determine the necessary 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 necessary tactics and methods of surgical operations in a modern format; maintenance of the postoperative period; rehabilitation regime; ability to diagnose emergencies; ability to determine tactics and skills of emergency medical care; skills of performing medical manipulations; ability to plan and carry out preventive measures, including for diseases of the musculoskeletal system; ability to keep medical records.

1.3.2. The study of the discipline provides students with the acquisition of the following **program learning outcomes:**

- acquisition by a person of general and special fundamental and professionally-oriented knowledge, skills, abilities, competencies necessary for the performance of typical professional tasks related to his / her activity in the medical field in the relevant position

PRN 3 - the ability 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

- collection of patient information
- evaluation of survey results, physical examination, laboratory and instrumental research data
- establishing a preliminary clinical diagnosis of the disease
- determining the nature, principles of treatment of diseases
- diagnosing emergencies, determining the tactics of emergency medical care
- performance of medical manipulations
- maintenance of medical documentation, processing of state, social and medical information
- the ability to 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
- the formation of a specialist with appropriate personal qualities, who adheres to the code of ethics of the doctor

1.3.3. The study of the discipline provides students with the following **social skills (Soft skills):**

- communicativeness (implemented through: the method of group work and brainstorming during the analysis of clinical cases, the method of presenting the results of independent work and their protection in the group),
- teamwork (implemented through: group work method and brainstorming during the analysis of clinical cases),
- conflict management (implemented through: business games),
- time management (implemented through: the method of self-organization during classroom work in groups and independent work),
- leadership skills (implemented through: the method of presenting the results of independent work and their defense in the group).

2. INFORMATION SCOPE OF THE COURSE

Course 6

Specific semester/academic year 6

Scope of discipline: ECTS credits – 3, Total hours amount 90, of which lectures – 0 hours, practical training – 60 hours, ISW – 30 hours.

Type of control – differentiated credit.

The status of the discipline - normative, discipline format – mixed (combination of traditional forms of classroom training with e-learning elements on Moodle, ZOOM,, Google Meet platforms).

The methods of the training. Types of educational activities of students according to the curriculum are: a) lectures, b) practical training, c) independent students work (ISW).

Thematic plans of lectures, practical classes and ISW ensure the implementation in the educational process of all topics that are part of the discipline. The topics of the lecture course reveal the problematic issues of the relevant sections of medicine.)

The method of organizing clinical practical classes in internal medicine implies the need to:

- to make a student a participant in the process of providing medical care to patients from the moment of their hospitalization, examination, diagnosis, treatment to discharge from the hospital;
- to master professional practical skills;
- to form the responsibility of the student as a future specialist for the level of their training, its improvement during training and professional activity. To implement the above at the first class, each student is provided with a detailed plan of his work in the clinic and the organization of its implementation is ensured.

This plan includes:

- methodic studies that a student should learn (or get acquainted with);
- algorithms (protocols) of examinations, diagnosis, treatment, prevention in accordance with the standards of evidence-based medicine;
- the number of patients for curation, which should be carried out by the student during the cycle;
- reports on the patient's medical history in the training group, at clinical bypasses, practical conferences.

Patient curation involves:

- 1) clarification of the patient's complaints, history of the disease and life, conducting a survey on organs and systems;
- 2) physical examination of the patient and determination of the main symptoms of the disease;
- 3) analysis of laboratory and instrumental examination of the patient;
- 4) formulation of the diagnosis of the patient;
- 5) treatment appointment;
- 6) determination of primary and secondary prevention measures;
- 7) report of the results of the examination of the patient by the team of students in the study group, analysis under the guidance of the teacher of the correctness of the diagnosis, differential diagnosis, the volume of the assigned examination, therapeutic tactics, assessment of prognosis and performance;

ISW and individual student work:

- preparation for practical classes on planned topics;
- work of students in the departments of clinical base of the department, including in laboratories and offices of functional diagnostics; interpretation of data of laboratory and instrumental research methods in internal pathology;
- learning practical skills with the help of phantoms and working with patients (according to the list)
- individual ISW (speech at the scientific and practical conference of the clinic, writing articles, abstract report on practical classes, etc.);
- work in the phantom class "Universitet".

Teachers, employees of the clinic and auxiliary staff of the department provide the opportunity to carry out ISW, during practical classes they monitor and evaluate its implementation.

The organization of the educational process ensures the participation of students in the conduct of at least 2/3 of inpatient patients. If it is not possible to provide curation of patients with diagnoses on the topic of the lesson, students fill out a study history of the disease with diseases of the relevant topic. The need to write such a story

is determined by the teacher of the group on the basis of viewing data on the presence of appropriate patients in the departments.

Daily patient review protocols by students are provided to the teacher for monitoring. Teachers ensure that each student receives the necessary competence in the following areas: patient questioning, physical examination, oral report, making diagnostic decisions and determining therapeutic tactics (critical thinking), filling in documentation.

Name of indicators	Field of knowledge, specialty, educational degree, OPP	Characteristics of the discipline	
		full-time education	
Number of credits – 3	Branch of knowledge <u>22 Health care</u>	Normative	
The total number of hours – 90	Specialty: <u>222 Medicine</u> Specialization:	Year of preparation:	
		6	
		Semester	
		Lectures	
Hours for full-time study: classroom - 60 independent work of the student – 30	Educational degree: <u>second (master's) - "master of medicine"</u> OPP <u>"Medicine"</u>	0 h	
		Practical	
		60 h	
		Individual work	
		30 h	
		Type of control: Differentiated credit	

2.1 Description of the discipline

2.2.1 Lectures - no

2.2.2 Seminars - no

2.2.3 Practical classes

№ s / n	Name topics	Number hours	Methods teaching	Forms control
1.	Arterial embolism and acute arterial thrombosis of the extremities (syndrome acute ischemia of the extremities)	8	Story-explanation, conversation, illustration, demonstration, presentation, discussion, round table, modeling of processes and situations, debate, method "Brainstorming", sparring partnership (learning in pairs)	Oral interview (individual and frontal); written survey; test control; creative tasks; individual tasks; abstracts; mutual control; self-control; report; declamation.
2.	Acute thrombosis of the magistral veins of the extremities. Pulmonary embolism.	8	Story-explanation, conversation, illustration, demonstration, presentation, discussion, round table, modeling of processes and situations, debate, method "Brainstorming", sparring partnership (learning in pairs)	Oral interview (individual and frontal); written survey; test control; creative tasks; individual tasks; abstracts; mutual control; self-control; report; declamation.
3.	Varicose veins disease. Endovenous treatment. Chronic venous insufficiency.	8	Story-explanation, conversation, illustration, demonstration, presentation, discussion, round table, modeling of processes and situations, debate, method "Brainstorming", sparring partnership (learning in pairs)	Oral interview (individual and frontal); written survey; test control; creative tasks; individual tasks; abstracts; mutual control; self-control; report; declamation.
4.	Ischemic heart disease and its complications. Acute coronary syndrome. Modern treatment. Heart injuries.	8	Story-explanation, conversation, illustration, demonstration, presentation, discussion, round table, modeling of processes and situations, debate, method "Brainstorming", sparring partnership (learning in pairs)	Oral interview (individual and frontal); written survey; test control; creative tasks; individual tasks; abstracts; mutual control; self-control; report; declamation.
5.	Chronic critical ischemia extremities, etiology, classification, kinds of the	10	Story-explanation, conversation, illustration, demonstration, presentation, discussion, round	Oral interview (individual and frontal); written survey; test control; creative tasks; individual

	conservative and surgical treatment.		table, modeling of processes and situations, debate, method "Brainstorming", sparring partnership (learning in pairs)	tasks; abstracts; mutual control; self-control; report; declamation.
6.	Final class. Training at Differentiated credit. Patient supervision.	10	Story-explanation, conversation, illustration, demonstration, presentation, discussion, round table, modeling of processes and situations, debate, method "Brainstorming", sparring partnership (learning in pairs)	Oral interview (individual and frontal); written survey; test control; creative tasks; individual tasks; abstracts; mutual control; self-control; report; declamation.
7.	Differentiated credit	8		
Total hours		60		

2.2.4. Laboratory classes - no

2.2.5. Individual work

No s / n	Name topics	Number hours	Methods teaching	Forms control
1	Thrombophilia - etiology, pathogenesis, clinical manifestations, principles of diagnosis and treatment.	10	Self-education	Self-control
2	Anticoagulant and thrombolytic therapy in acute thrombosis. Prophylactic anticoagulant therapy	5	Self-education	Self-control
3	Modern angiographic studies and X-ray endovascular interventions	10	Self-education	Self-control
4	Surgical treatment of heart valve disease.	5	Self-education	Self-control
Total hours of independent student work		30		

3. EVALUATION CRITERIA

3.1. Evaluation of the success of education of students is carried out on the basis of the current «Instructions for evaluating the educational activities of students of KhNMU».

Current educational activities are carried out and controlled by the teacher of the academic group, after students assimilate each topic of the discipline, it is evaluated using a 4-point (traditional) system: "excellent", "good", "satisfactory" and "unsatisfactory".

The final lesson is held after the logically completed part of the discipline, consisting of a set of educational elements of the curriculum, which combines all types of training (theoretical, practical, etc.) elements of the educational and professional program (academic discipline, all types of practices, certification), which is implemented by the relevant forms of the educational process. The final lesson is conducted according to the curriculum during the semester according to the schedule, during classes. The final lesson is accepted by the teacher of the academic group or an exchange of adjacent groups between teachers is carried out.

The forms of the final training are standardized and include control of all types of training (theoretical, practical, independent etc.) provided for by the curriculum of the discipline:

The assessment is assuming:

1. Solving a package of test tasks on the content of educational material in the amount of 30 tests (open database of test tasks "Krok-2").

2. Assessment of practical skills development (evaluation criteria – "fulfilled" or "not fulfilled");

3. During the assessment of the student's knowledge on theoretical issues included in this final lesson, the student is given a traditional assessment, which is converted into a multi-scale, along with assessments for current academic activities. The recalculation of the average assessment of the current educational activity into the multi-scale ECTS is carried out in accordance with the "Instructions for assessing the educational activities of students of KhNMU".

The minimum number of points that a student must score for admission to the exam is 70 points, the maximum number of points that a student can score is 120 points.

The final semester control is carried out after the completion of the study of the discipline in the form of an exam.

The exam is conducted by examiners approved by the order of the Rector of the University.

On the day of the exam, the assimilation of practical skills and theoretical knowledge on all topics of the V course is carried out. Assessment of practical skills is carried out according to the criteria "performed", "not fulfilled"). The minimum positive score at the exam is 50 points. The maximum number of points is 80 points.

If the exam is not taken, the laying dates are set during the holidays, before the beginning of the next semester.

Liquidation of academic debt (working out).

3.2. Questions to differentiated credit:

1. Arterial emboli and acute arterial thrombosis of the extremities (syndrome of acute ischemia of the extremities).

Diagnostic criteria for arterial emboli and acute arterial thrombosis of the extremities. Methods of examination of patients with arterial emboli and acute arterial thrombosis of the extremities. Classification of arterial emboli and acute arterial thrombosis of the extremities. Tactics of management of patients with arterial embolism and acute arterial thrombosis of the extremities. Differential diagnosis with other vascular and general pathology. Indications for surgery. Indications for emergency surgery. Types of surgical interventions and tactics of postoperative period management. Complications of arterial emboli and acute arterial thrombosis of the extremities .. Complications in the postoperative period.

2. Acute thrombosis of the main veins of the extremities. Pulmonary artery thromboembolism (PE).

Leading clinical symptoms of acute thrombosis of the main veins of the extremities. Etiology of the disease. Examination protocol. Procedure for appointment and selection of anticoagulants. Dosage regimen and timing of anticoagulants. Bleeding risk scale. Compression treatment. Prevention of this pathology. PE - clinical manifestations. Classification. Differential diagnosis .. Examination methods. Providing emergency care to patients with pulmonary embolism. Tactics of patient management. Indications and contraindications to surgical treatment.

3. Varicose veins of the extremities, endovenous treatment. Chronic venous insufficiency.

Prevalence among the population, pathogenesis of CVI, classification, symptoms, modern diagnosis, surgical and endovenous treatment of CVI and varicose veins depending on the stage.

4. Ischemic heart disease, acute coronary syndrome. Modern treatment. Heart damage.

Risk factors and etiological factors of coronary heart disease, clinical manifestations of acute coronary syndrome, modern diagnosis, thrombolytic therapy, coronary angiography, percutaneous coronary interventions, coronary artery bypass grafting, postoperative treatment of patients with coronary heart disease. Clinical symptoms of heart damage. Features of instrumental and laboratory diagnostics. Indications for conservative and surgical treatment of patients. Types of surgical interventions. Types of endovascular interventions. Features of conservative treatment in the postoperative period.

5. Chronic critical ischemia of the lower extremities, etiology, classification, differential diagnosis, types of surgical and conservative treatment.

Etiology, modern classification, clinical manifestations, differential diagnosis. Endovascular treatment, modern possibilities of cellular therapy in inoperable conditions critical ischemia of the lower extremities.

3.3. control questions

- 1 Thrombophilia - etiology, pathogenesis, clinical manifestations, principles of diagnosis and treatment.
- 2 Anticoagulant and thrombolytic therapy in acute thrombosis. Prophylactic anticoagulant therapy
- 3 Modern angiographic studies and X-ray endovascular interventions
- 4 Surgical treatment of heart valve disease.

3.4. Individual tasks (the list approved at the meeting of the department with the determination of the number of points for their performance, which can be added as incentives): The 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.

The individual tasks of the applicant are evaluated for participation with reports in student conferences and competitions, especially with the receipt of prizes, for the publication of scientific papers, for the preparation of analytical reviews with presentations, for writing a scientific review of modern scientific literature on the subject in ECTS credits. to the basic points on ZND of the applicant from discipline as encouraging (at the request of the applicant) in number no more than 10 (thus the sum of points should not exceed 120 points).

3.5. Rules for appealing the assessment. On the basis of the "Regulations on the appeal of the results of the final control of applicants for higher education of KhNMU", the applicant has the right to file an appeal (appeal) against the final grade, which is set in the discipline. The applicant submits an application to the head. department at which he studies. Applications are considered at a meeting of the appeal commission. The results of the appeal are announced to the student immediately after the consideration of his application. The decision of the appeal commission is final and not subject to appeal.

4. DISCIPLINE POLICY

In order to successfully complete the relevant course, it is necessary to regularly attend practical classes; to have theoretical preparation for practical classes according to the subject; not to be late and not to miss classes; perform all necessary tasks and work on each lesson; be able to work in a group; to address to the teacher on various questions on subjects of employment and to receive the answer.

Active participation during the discussion in the audience, 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 experiences,
- susceptibility and impartiality,
- the ability to disagree with the opinion, but to respect the personality of the opponent,

- careful argumentation of one's opinion and courage to change one's position under the influence of evidence,
- expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on their own thoughts and emotions,
- obligatory acquaintance with primary sources.

Students can discuss different tasks, but their performance is strictly individual. It is not allowed to write off, use various software, tips, use a mobile phone, tablet or other electronic gadgets during classes for purposes other than the educational process. Students are not allowed to be late for practical classes.

Students are expected to attend all lectures and workshops. Written and homework must be completed completely and on time, if students have questions, you can contact the teacher in person or by e-mail, which the teacher will provide in the first practical lesson.

During the lecture, students are recommended to keep a synopsis of the lesson and keep a sufficient level of silence. Asking questions to a lecturer is perfectly normal.

Visiting patients during hospital treatment is possible provided that students have the appropriate form of clothing and in the absence of infectious diseases, according to the current epidemic situation.

Class attendance and behavior

If students missed classes, it is necessary to work it out (according to the schedule on the information stand of the department). If the sum of points is less than 50 points, the evaluation of the DR is determined by the criterion "failed" and requires its re-assembly with the permission of the dean's office.

Provide students who have academic debt with an additional opportunity to eliminate it in their free time on Saturdays and during the holidays.

It is important for students to follow the rules of good behavior at the university. These rules are common to all, they also apply to all faculty and staff, and are not fundamentally different from the generally accepted norms.

During classes it is allowed:

- leave the audience 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 (see Academic Expectations from Students).

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 beverages or drugs;
- to use obscene language or use words that offend the honor and dignity of colleagues and faculty;
- gaff;
- to 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.

Students with special needs can meet with the teacher or warn him before the start of classes, at the request of the student it can be done by the head of the group.

All KhNMU students are protected by the Regulations on Prevention, Prevention and Settlement of Cases Related to Sexual Harassment and Discrimination at Kharkiv National Medical University (http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog-sex.doc), which is designed to define an effective mechanism for resolving conflict situations related to discrimination and sexual harassment.

KhNMU creates a space of equal opportunities free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities granted to students or staff of the University apply to all without exception, provided they are properly qualified. The anti-discrimination policy and the policy of counteracting sexual harassment of KhNMU are confirmed by the Code of Corporate Ethics and the Charter of KhNMU.

5. ACADEMIC INTEGRITY

The Department of Surgery #1 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. Link to "Regulations on Academic Integrity and Ethics of Academic Relations at Kharkiv National Medical University" http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_text.pdf

6. RECOMMENDED LITERATURE

Basic

1. Barallobre-Barreiro J. [et al.]. Extracellular matrix remodelling in response to venous hypertension: proteomics of human varicose veins / Barallobre-Barreiro J. [et al.]// Cardiovascular research. -2016. -№ 3 (110). -C.419–430.
2. Flessenkämper I. [et al.]. Endovenous laser ablation with and without high ligation compared to high ligation and stripping for treatment of great saphenous varicose veins: results of a multicentre randomised controlled trial with up to 6 years follow-up / Flessenkämper I. [et al.]// Phlebology. -2016. -№ 1 (31). -C. 23–33.
3. Kim P. S. [et al.]. Mechanochemical ablation for symptomatic great saphenous vein reflux: a two-year follow-up / Kim P. S. [et al.]// Phlebology. -2017.- № 1 (32). -C. 43–48.
4. Nicolaides A. [et al.]. Management of chronic venous disorders of the lower limbs. Guidelines According to Scientific Evidence. Part I. / Nicolaides A. [et al.]// International angiology: a journal of the International Union of Angiology. - 2018. -№ 3 (37). - C. 181-254.
5. Perrin M. et al. Venous symptoms: the SYM Vein Consensus statement developed under the auspices of the European Venous Forum //International Angiology. – 2016. – T. 35. – №. 4. – C. 374-398.
6. Serra R. [et al.]. Estrogen receptors and chronic venous disease / Serra R. [et al.]// European Journal of Vascular and Endovascular Surgery. -2016. -№ 1 -(52). - C. 114–118.
7. Tsukanov Y. T., Tsukanov A. Y. Predictive value of a day orthostatic loading test for the reversibility of the great saphenous vein reflux after phlebectomy of all varicous tributaries. // International angiology: a journal of the International Union of Angiology. - 2017. -№ 4 (36). -C. 375–381.
8. Vuylsteke M. E. [et al.]. The influence of age and gender on venous symptomatology. An epidemiological survey in Belgium and Luxembourg / Vuylsteke M. E. [et al.]// Phlebology. -2016. -№ 5 (31). -C. 325–333.

Guidelines

Auxiliary

7. INFORMATION RESOURCES

Link to the Discipline in MOODLE

<http://distance.knmu.edu.ua/course/index.php?categoryid=34>

8. Additional information

Useful links:

Provisions on prevention and settlement of cases related to sexual harassment and discrimination in KhNMU

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog-sex.doc

Regulations on Academic Integrity and Ethics of Academic Relations at Kharkiv National Medical University

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_text.pdf

The order of conducting classes on in-depth study by students of Kharkiv National Medical University of individual disciplines beyond the scope of the curriculum http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/nak-poriad-pogl-vyv-dysc.docx

Regulations on the Commission on Academic Integrity, Ethics and Conflict Management-KhNMU http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_komis_ad_text.pdf

Regulations on the recognition of the results of non-formal education at Kharkiv National Medical University
http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_neform_osv.pdf

INCLUSIVE EDUCATION:

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=7108%3A2021-03-10-14-08-02&catid=12%3A2011-05-10-07-16-32&Itemid=33&lang=uk

Academic Integrity:

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=uk
http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/kodex_AD.docx