

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY

Department of Surgery №3

CONFIRMED by

Acting vice-rector for scientific and pedagogical work
Svitlana KOTIUSZYNSKA

September 1, 2022



WORKING PROGRAM IN THE DISCIPLINE

"SURGERY WITH PEDIATRIC SURGERY "

Level of higher education: second (master's degree)

Field of knowledge: 22 "Health care"

Specialty: 222 "Medicine"

Educational and professional: Medicine

2022–2023

The work program was compiled on the basis of the educational and professional program "Medicine" for the training of specialists of the second (master's) level of higher education in the specialty 222 "Medicine" of the branch of knowledge 22 "Health", adopted by the Academic Council of ONMedU (minutes No. 9 dated June 23, 2020))

Authors:

MD, Professor V. G. Bondar, MD, Professor Chetverikov S. G., MD, Professor O. F. Dzygal, MD, Associate Professor V. V. Kryzhanivskii, PhD, MD, Associate Professor E. A. Kvasnevskii, PhD, MD, Associate Professor Chehlov M. V., PhD, MD, Assistant. Kirillova O. F.

The working program is approved at the meeting of the Department of Surgery No. 3
Minutes No. 9 dated June 27, 2022.

Head of the department  MD, Professor Bondar V. G.

Approved by the guarantor of
the educational and professional program  Valeriia MARICHEREDA

Approved by the subject cyclical methodical commission for surgical disciplines of ONMedU
Minutes No. 6 dated "30" of June 2022.

Head of the subject cycle methodical commission for surgical disciplines
 MD, Professor Mishchenko V. V.

Revised and approved at the meeting of the department _____

Minutes No. ___ of "___" _____ 20__

Head of the department _____ MD, Professor Bondar V. G.

Revised and approved at the meeting of the department _____

Minutes No. ___ of "___" _____ 20__

Head of the department _____ MD, Professor Bondar V. G.

1. Description of the discipline

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the discipline
The total number of: Credits of ECTS: 4 Hours: 120 Content modules: 2	Field of knowledge 22 "Health care"	<i>Full-time (day) study</i>
	<hr/> Specialty 222 "Medicine"	<i>Compulsory discipline</i>
	<hr/> Level of higher education second (master's degree)	<i>Course: 5</i>
		<i>Semesters IX - X</i>
		<i>Lectures (12 hours)</i>
		<i>Seminars (0 hours)</i>
		<i>Practical classes (68 hours)</i>
		<i>Laboratories (0 hours)</i>
		<i>Independent work (40 hours)</i>
		<i>including individual tasks (0 hours)</i>
	<i>Final control form- Dif. credit test</i>	

Note. The hours corresponds to the educational program of the curriculum.

2. The purpose and tasks of the educational discipline— competencies, program learning outcomes

The purpose is to master the knowledge and to form the elements of the professional competencies, methods of diagnosis, treatment and prevention of surgical diseases, primarily the most common and urgent ones and practical Skills in surgery on the basis if the specialized modern scientific achievements.

The tasks of the discipline are the following:

- determine methods of diagnosis, algorithm of conservative and operative treatment of surgical diseases of the digestive system, cardiovascular and respiratory systems, depending on the occurrence and occurrence of features of their Clinical manifestations;
- learn the differential diagnosis of diseases of the organs of the abdominal cavity, extraperitoneal space and chest;
- determine the principles of postoperative treatment and rehabilitation of patients with surgical pathology;
- to identify modern methods of diagnosis and treatment, postoperative supervision and rehabilitation of surgical diseases;
- learn riSC factors for complications of diseases of the digestive system, cardiovascular and respiratory systems;
- interpret the results of laboratory and instrumental research of the digestive system, cardiovascular and respiratory systems;
- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in surgery;
- to carry out a prognosis of life and working capacity in case of surgical diseases of the digestive system, cardiovascular and respiratory systems;
- interpret the general principles of treatment, rehabilitation and prevention of the most common surgical diseases of the digestive system, cardiovascular and respiratory systems;

- demonstrate the ability to maintain medical documentation in the Clinics of surgical diseases;
- provide emergency medical care for urgent diseases of the digestive system, cardiovascular and respiratory systems.

The process of studying the discipline is aimed at forming elements of the following competencies:

- IC The ability to solve typical and complex problems, including research and innovation in the field of medicine. Ability to continue learning with a high degree of autonomy.

- **General (GC):**

GC 1. Ability for abstract thinking, analysis and synthesis.

GC 3. Ability to apply knowledge in practical situations.

GC 4. Knowledge and understanding of the subject area and understanding of professional activities.

GC 6. Ability to make informed decisions.

GC 7. Ability to work in a team.

GC 8. Ability for interpersonal interaction.

GC 11. Ability to search, process and analyze information from various sources.

GC 12. Determination and perseverance in the tasks and responsibilities taken values of a public (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.

GC 15. The ability to preserve and increase the moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, to use various types and forms of physical activity of active rest and healthy lifestyle

GC 16. Ability to evaluate and ensure the quality of work performed.

- **Special (SC):**

SC 1. Ability to collect medical information about a patient and analyze clinical data.

SC 2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results.

SC 3. The ability to establish a preliminary and clinical diagnosis of the disease.

SC 4. The ability to determine the required mode of work and rest in the treatment and prevention of diseases.

SC 5. The ability to determine the nature of nutrition in the treatment and prevention of diseases.

SC 6. The ability to determine the principles and nature of the treatment and prevention of diseases.

SC 7. Ability to diagnose emergency conditions.

SC 8. Ability to determine tactics and provide emergency medical care.

SC 10. Ability to perform medical procedures.

SC 11. The ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and moral responsibility.

SC 16. Ability to maintain medical records, including electronic forms.

SC 24. Compliance with moral principles when working with patients, laboratory animals.

SC 25. Compliance with professional and academic virtue, be responsible for the reliability of the scientific results obtained.

SC26. The ability to determine the tactics of conducting persons subject to dispensary supervision.

Program learning outcomes (PLO):

PLO 1. Have a solid knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integrating knowledge. Be responsible for professional development, the ability for further professional training with a high level of autonomy.

PLO 2. Understanding and knowledge of fundamental and clinical biomedical sciences at a level sufficient to solve professional problems in the field of healthcare.

PLO 3. Specialized conceptual knowledge, including scientific achievements in the field of health, is the basis for research, critical thinking about problems in the field of medicine and related to interdisciplinary problems.

PLO 4. Isolate and identify the leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data from the patient's history, data from the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease (according to list 2).

PLO 5. Collect complaints, anamnesis of life and disease, evaluate the patient's psychomotor and physical development, the state of the organs and systems of the body, evaluate information about the diagnosis based on the results of laboratory and instrumental studies (according to list 4), taking into account the patient's age.

PLO 6. Establish a final clinical diagnosis by making an informed decision and analyzing the obtained subjective and objective data from a clinical, additional examination, conducting differential diagnostics, observing the relevant ethical and legal standards, under the supervision of a medical director in a healthcare institution (according to list 2).

PLO 7. Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) (according to list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).

PLO 8. Determine the main clinical syndrome or symptom that determines the severity of the condition of the victim / victim (according to list 3) by making an informed decision on the person's condition under any circumstances (in health care, outside it), incl. in conditions of emergency and combat operations, in the field, in conditions of lack of information and limited time.

PLO 9. Determine the nature and principles of treatment of patients (conservative, surgical) with diseases (according to list 2), taking into account the age of the patient, in healthcare conditions, outside it and at the stages of medical evacuation, incl. in the field, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal standards, by making an informed decision on existing algorithms and standard schemes, if it is necessary to expand the standard scheme, be able to substantiate personalized recommendations under the supervision of a medical director in a medical institution.

PLO 10. Determine the necessary mode of work, rest and nutrition based on the final clinical diagnosis, observing the relevant ethical and legal standards by making an informed decision on existing algorithms and standard schemes.

PLO 14. Determine tactics and provide emergency medical care in emergency conditions (according to list 3) in a limited time frame in accordance with existing clinical protocols and treatment standards.

PLO 15. Organize the provision of medical care and medical evacuation measures to the population and military personnel in emergency situations and military operations, incl. in the field.

PLO 17. Performing medical manipulations (according to list 5) in a medical institution, at home or at work based on a preliminary clinical diagnosis and / or indicators of the patient's condition by making an informed decision, observing the relevant ethical and legal standards.

PLO 18. Determine the state of functioning and limitations of a person's life and the duration of disability with the execution of relevant documents, in the conditions of a healthcare institution based on data on the disease and its course, the characteristics of a person's

professional activity, etc. Maintain medical documentation for the patient and the contingent of the population on the basis of regulatory documents.

PLO 21. Find the necessary information in professional literature and databases in other sources, analyze, evaluate and apply this information.

PLO 24. Organize the necessary level of individual security (own and those of whom he cares) in the event of typical dangerous situations in the individual field of activity.

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

— know:

- modern concepts of domestic and foreign theoretical and practical surgery;
- basic principles of organizing surgical care for the population of Ukraine;
- basic principles of organizing surgical care for the population of Ukraine.
- Clinical and laboratory and additional methods of diagnosis of surgical pathology of the body;
- etiology, pathogenesis, Clinical , diagnosis and methods of treatment of surgical diseases (within the curriculum);
- etiological, pathogenetic factors, Clinical manifestations and diagnosis of emergency conditions;
- emergency surgical care tactics;
- organization of medical evacuation measures

— be able:

- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in general surgery;
- determine the most common Clinical symptoms and syndromes in
- surgical diseases;
- to analyze the results of examination of dental patients with general surgical pathology;
- apply methods of statistical analysis of medical and biological data;
- carry out basic methods of general Clinical examination of the patient (interview, examination, palpation, percussion, auscultation), determine a certain amount of additional research and analyze the obtained data to establish a preliminary diagnosis;
- perform general medical manipulations (bandages, injections, washing of the stomach and intestines, stopping bleeding, transport and medical immobilization for dislocations and fractures of bones, local infiltration and conduction anesthesia, transfusion of blood and blood substitutes) and decide on the issue of referring the patient to a specialist ;
- provide the necessary assistance in case of short-term loss of consciousness, collapse, shock, coma, allergic reactions, asphyxia, acute abdomen, trauma, bleeding, burns, frostbite;
- carry out resuscitation measures in terminal conditions and refer patients to a specialized department;

3.Content of the educational discipline

Content module № 1.: "THORACIC, CARDIAC, ENDOCRINE SURGERY".

Theme 1 Chest trauma.

Rib fractures. Classification. Early and late complications. Clinics and diagnostics of pneumothorax, hemothorax Special research methods: echocardiography, ultrasound scanning, heart sounding, cinecardiography, thoracocentesis. Differential diagnosis. First medical aid and treatment tactics. Diagnostic program for heart damage. Triad of symptoms of heart injury. Unified Clinical -diagnostic and treatment-surgical program for heart injuries. Determination of penetrating and non-penetrating cardiac injuries. Classification of heart damage. Pathogenesis. Diagnosis and differential diagnosis of penetrating and non-penetrating wounds of the heart.

Theme 2 Purulent diseases of the lungs and pleura.

Abscess and gangrene of the lungs, bronchiectasis. Acute and chronic pleural empyema, pyopneumothorax. Etiology, pathogenesis, diagnosis. Features of the Clinical course. Differential diagnosis. Specific research methods. Methods of conservative and surgical treatment.

Theme 3 Diseases of the mediastinum.

Acute and chronic mediastinitis. Etiology, pathogenesis. Classification. Clinical picture. Diagnostics. Differential diagnosis. Methods of surgical treatment. Benign tumors and cysts. Etiology, pathogenesis. Classification. Clinical picture. Diagnostics. Specific research methods. Differential diagnosis. Methods of surgical treatment.

Theme 4 Diseases and injuries of the esophagus.

Benign tumors and cysts. Achalasia cardia, Burns. Diverticula of the esophagus. Gastroesophageal reflux. Other diseases of the esophagus: foreign bodies, injuries, BARRETT's esophagus. Etiology, pathogenesis. Classification. Clinical picture. Diagnostics. Specific research methods. Differential diagnosis. Methods of surgical treatment.

Theme 5 Hiatus hernia.

Etiology, pathogenesis. Classification. Clinical picture. Diagnostics. Specific research methods. Differential diagnosis. Methods of surgical treatment.

Theme 6 Euthyroid and toxic goiter.

Classification. Etiology, pathogenesis. Plan of examination of a patient with goiter. Clinical picture. Rules for palpation of the thyroid gland. Specific research methods. Diagnostics. Differential diagnosis. Preoperative preparation. Surgical treatment.

Theme 7 Diseases of the breast (dyshormonal, tumors).

Mastitis. Etiology, pathogenesis. Classification. Specific research methods. Diagnostics. Differential diagnosis. Conservative therapy. Surgical treatment. Mastopathy and benign breast tumors. Etiology, pathogenesis. Classification. Specific research methods. Diagnostics. Differential diagnosis. Conservative therapy. Surgical treatment.

Content module № 2.: "VASCULAR SURGERY"

Theme 8 Arterial thrombosis and embolism.

Etiology, pathogenesis. Classification of acute limb ischemia. Clinical stages of the course. Clinical picture. Specific research methods. Diagnostics. Rules for palpation of the pulse in the peripheral arteries. Differential diagnosis. Methods of surgical treatment.

Theme 9 Chronic ischemia of the lower extremities.

Obliterating atherosclerosis and endarteritis. Buerger's disease. Raynaud's disease. Classification of chronic ischemia and levels of occlusion of the aorta and arteries of the lower extremities. Clinical stage of the course. Diagnostics. Functional tests. Specific research methods. Differential diagnosis. Methods of conservative and surgical treatment.

Theme 10 Diabetic foot.

Etiology, pathogenesis. Classification. Wagner classification. Clinical picture. Specific research methods. Comparative diagnosis of different forms of diabetic foot. Differential diagnosis. Conservative therapy. Surgical treatment.

Theme 11 Pulmonary embolism.

Etiology, pathogenesis. Pathological and Clinical classification. Clinics, diagnosis, treatment. Modern endovascular surgical interventions. Means of prevention.

Theme 12 Aneurysm of the aorta and peripheral arteries.

Etiology, pathogenesis. Classification. Clinical picture. Clinical variants. Specific research methods. Diagnostics. Differential diagnosis. Conservative therapy. Preoperative preparation. Surgical treatment.

Theme 13 Abdominal ischemic syndrome.

Etiology, pathogenesis. Classification. Clinical picture. Specific research methods. Clinical variants. Diagnostics. Differential diagnosis. Complications. Methods of conservative treatment. Prevention Rehabilitation.

Theme 14 Mesentery thrombosis.

Etiology, pathogenesis. Classification. Clinical picture. Clinical variants. Specific research methods. Diagnostics. Differential diagnosis. Complications. Methods of conservative treatment. Prevention Rehabilitation.

Theme 15 Varicose veins.

Varicose veins. Etiology. Pathogenesis. Classification. Complications. Diagnostics. Functional tests. Specific research methods. Methods of conservative treatment. Compression therapy. Methods of surgical treatment. Treatment of varicose ulcers. Diagnosis and treatment of bleeding from a varicose vein.

Theme 16 Thrombosis of the main veins.

Etiology. Pathogenesis. Classification. Clinics. Diagnostics. Differential diagnosis. Methods of conservative and surgical treatment. Iliofemoral thrombosis. White and blue phlegmasia. Clinics. Diagnostics. Differential diagnosis. Methods of conservative and surgical treatment.

Theme 17 Postthrombophlebotic syndrome.

Etiology. Pathogenesis. Classification. Clinical picture. Functional tests.

Theme 18 Postthrombophlebotic syndrome.

Diagnostics. Specific research methods. Features of compression therapy. Conservative and surgical treatment.

Theme 19 Limb lymphedema.

Etiology. Pathogenesis. Classification. Lymphedema stages. Complications. Diagnostics. Specific research methods. Methods of conservative treatment. Compression therapy.

Conservative therapy. Methods of surgical treatment

Theme 20 Patient examination & Case history.

Structure and scheme of the medical history of a surgical patient. The procedure for collecting complaints, anamnesis of the disease and life. Features of the physical examination of the patient by systems. Examination of the site of the disease. The role of additional methods of examination in the diagnosis. Diagnosis and determination of treatment tactics for the patient. Curation of thematic patients and writing training case history. Defense of the training case history.

Theme 21

Test-control

4. The structure of the educational discipline

Themes	Number of hours					
	Total	including				
		Lectures	seminars	practical classes	laboratories	Independent work
Content module 1. THORACIC, CARDIAC, ENDOCRINE SURGERY.						
Theme 1. Chest trauma.	8	2		4		2
Theme 2. Purulent diseases of the lungs and pleura.	6			4		2
Theme 3. Diseases of the mediastinum.	4			2		2
Theme4. Diseases and injuries of the esophagus.	7	1		4		2
Theme 5. Hernia of the esophageal opening of the diaphragm	5	1		2		2
Theme 6. Euthyroid and toxic goiter.	8	2		4		2
Theme 7. Diseases of the breast (dyshormonal, tumors).	6			4		2
<i>Total by content module 1</i>	44	6		24		14
Content module 2. VASCULAR SURGERY						
Theme 8. Arterial thrombosis and embolism	5	1		2		2
Theme 9. Chronic ischemia of the lower extremities	7	1		4		2
Theme 10. Diabetic foot	4			2		2

Theme 11. Pulmonary embolism	4			2		2
Theme 12. Aneurysm of the aorta and peripheral arteries	6			4		2
Theme 13. Abdominal ischemic syndrome	7	1		4		2
Theme 14. Mesentery thrombosis.	5	1		2		2
Theme 15. Varicose veins.	7	1		4		2
Theme 16. Thrombosis of the main veins	5	1		2		2
Theme 17. Postthrombophlebotic syndrome. Classification. The Clinical picture	2			2		
Theme 18. Postthrombophlebotic syndrome. Diagnostics. Conservative and surgical methods of treatment.	4			2		2
Theme 19. Limb lymphedema.	4			2		2
Theme 20. Patient examination & Case history.	8			6		2
Theme 21. Test-control	2			2		
<i>Total by content module 2</i>	70	6		40		24
Differential credit test.	6			4		2
Total hours	120	12		68		40

5. LECTURES

№	Theme	hours
1	Surgical pathology of the respiratory system	2
2	Diseases and injuries of the esophagus: Benign tumors and cysts. Achalasia of the cardia, Diverticula of the esophagus. Gastroesophageal reflux. Burns. Injuries. Foreign bodies, BARRETT Esophagus.	2
3	Euthyroid and toxic goiter. Diseases of the parathyroid glands	2

4	Clinical picture, diagnosis and treatment of acute and chronic ischemia of the lower extremities.	2
5	Abdominal ischemic syndrome. Mesenteriothrombosis	2
6	Diagnostics and treatment of acute and chronic diseases of the peripheral veins of the upper and lower extremities	2
	Total	12

5.2.Seminar classes are not provided

5.3. Themes of practical classes

	Theme	hours
	Content module 1 THORACIC, CARDIAC, ENDOCRINE SURGERY.	
1.	Chest trauma. Rib fractures. Classification. Early and late complications. Clinics and diagnostics of pneumothorax, hemothorax Special research methods: echocardiography, ultrasound scanning, heart sounding, cinecardiography, thoracocentesis. Differential diagnosis. First medical aid and treatment tactics.	2
2.	Chest trauma. Diagnostic program for heart damage. Triad of symptoms of heart injury. Unified Clinical -diagnostic and treatment-surgical program for heart injuries. Determination of penetrating and non-penetrating cardiac injuries. Classification of heart damage. Pathogenesis. Diagnosis and differential diagnosis of penetrating and non-penetrating wounds of the heart.	2
3.	Purulent diseases of the lungs and pleura. Abscess and gangrene of the lungs, bronchiectasis. Features of the Clinical course. Differential diagnosis. Methods of conservative and surgical treatment.	2
4.	Purulent diseases of the lungs and pleura. Acute and chronic pleural empyema, pyopneumothorax. Features of the Clinical course. Differential diagnosis. Methods of conservative and surgical treatment.	2
5.	Diseases of the mediastinum. Classification. Diagnostics. Differential diagnosis. Surgical treatment methods.	2
6	Diseases and injuries of the esophagus. Benign tumors and cysts. Achalasia of the cardia. Burns. Injuries.	2
7.	Diseases and injuries of the esophagus. Diverticula of the esophagus. Gastroesophageal reflux. Other diseases: Foreign bodies, BARRETT esophagus.	2
8.	Hernia of the esophageal opening of the diaphragm	2
9.	Euthyroid and toxic goiter. Classification. Etiology, pathogenesis. Plan of examination of a patient with goiter. Clinical picture. Rules for palpation of the thyroid gland.	2
10.	Euthyroid and toxic goiter. Specific research methods. Diagnostics. Differential diagnosis. Preoperative preparation. Surgical treatment.	2
11.	Diseases of the breast (dyshormonal, tumor). Mastitis. Etiology, pathogenesis. Classification. Specific research methods. Diagnostics. Differential diagnosis. Conservative therapy. Surgical treatment.	2

12.	Diseases of the breast (dyshormonal, tumor). Mastopathy and benign breast tumors. Etiology, pathogenesis. Classification. Specific research methods. Diagnostics. Differential diagnosis. Conservative therapy. Surgical treatment.	2
	Content module 2. VASCULAR SURGERY	
13.	Arterial thrombosis and embolism. Classification of acute limb ischemia. Clinical stages of the course. Diagnostics. Differential diagnosis. Surgical treatment methods.	2
14.	Chronic ischemia of the lower extremities. Obliterating atherosclerosis and endarteritis. Buerger's disease. Raynaud's disease. Classification of chronic ischemia and levels of occlusion of the aorta and arteries of the lower extremities. Clinical stage of the course.	2
14.	Chronic ischemia of the lower extremities. Diagnostics. Functional tests. Specific research methods. Differential diagnosis. Methods of conservative and surgical treatment.	2
15.	Diabetic foot. Diagnostics. Special methods of research. Treatment methods.	2
16.	Pulmonary embolism. Clinics, diagnostics, treatment. Prevention means.	2
17.	Aneurysm of the aorta and peripheral arteries. Etiology, pathogenesis. Classification. Clinical picture. Clinical variants. Specific research methods.	2
18.	Aneurysm of the aorta and peripheral arteries. Diagnostics. Differential diagnosis. Conservative therapy. Preoperative preparation. Surgical treatment.	2
19.	Abdominal ischemic syndrome. Etiology, pathogenesis. Classification. Clinical picture. Specific research methods.	2
20.	Abdominal ischemic syndrome. Diagnostics. Differential diagnosis. Conservative therapy. Preoperative preparation. Surgical treatment.	2
21.	Mesenteriothrombosis. Diagnostics. Differential diagnosis. Complications. Conservative and surgical methods of treatment.	2
22.	Varicose veins. Varicose veins. Etiology. Pathogenesis. Classification. Complications. Diagnostics. Functional tests. Specific research methods.	2
23.	Varicose veins. Methods of conservative treatment. Compression therapy. Methods of surgical treatment. Treatment of varicose ulcers. Diagnosis and treatment of bleeding from a varicose vein.	2
24.	Thrombosis of the main veins. Classification. Clinics, diagnostics. Differential diagnosis. Methods of conservative and surgical treatment.	2
25.	Postthrombophlebitic syndrome. Classification. The Clinical picture.	2
26.	Postthrombophlebitic syndrome. Diagnostics. Conservative and surgical methods of treatment.	2
27.	Limb lymphedema. Forms of the disease. Diagnostics. Flow options. Conservative and surgical treatment.	2
28.	Patient examination & Case history. Structure and scheme of the medical history of a surgical patient. The procedure for collecting complaints, anamnesis of the disease and life. Features of the physical examination of the patient by systems. Examination of the site of the disease. The role of additional methods of examination in the diagnosis. Diagnosis and determination of treatment tactics for the patient.	2
29.	Patient examination & Case history. Curation of thematic patients and writing training case history.	2
30.	Patient examination & Case history. Defense of the training case history.	2
31/	Test-control	2
	Differential credit test.	4
	Total	68

5.4.Laboratory classes are not provided

6. Independent work

No n/p	Theme /TYPES OF TASKS	hours
1	Preparation for practical training - theoretical training and master of Skills	34
2	Independent study of topics that are not included in the classroom plan: 1. Acquired heart defects. Classification. Diagnostics. Indications for surgical treatment. Surgical methods. Complications 2. Ischemic heart disease. Myocardial infarction, cardiac aneurysm, conduction disorder. Diagnosis. Indications for surgical treatment. Surgical methods. 3. Diseases of the pericardium. Classification. Diagnostics. Differential diagnosis. Surgical treatment methods. 4. Diseases of the parathyroid glands. Classification. Special methods of research. Diagnostics. Differential diagnosis. Preoperative preparation. Surgery. 5. Diseases of the adrenal glands. Classification. Special methods of research. Diagnostics. Differential diagnosis. Preoperative preparation. Surgery.	6
	total	40

7. Teaching methods

Lectures.

Practical classes: conversation, role-playing games, solving Clinical situational problems, practicing patient examination Skills , practicing manipulation Skills according to list 5, instruction and practicing Skills on simulation dummies, training exercises on differential diagnosis of the most common diseases.

Individual work: independent work with the recommended basic and additional literature, with electronic information resources, independent work with the bank of test tasks, independent mastering of algorithms of communication with patients.

8. Forms of control and assessment methods (including criteria for evaluating learning outcomes)

Ongoing control:

oral control, testing, assessment of performance of Skills , assessment of communication Skills during role-playing, solving situational Clinical tasks, assessment of activity in class.

Final control Credit Test..

Assessment of the ongoing learning activity at the practical class:

1. Assessment of theoretical knowledge on the theme:
 - methods: individual survey on the theme, participation of the applicants in the discussion of problem situations; assessment of performance of tests on the theme;
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.

2. Assessment of Skills and manipulations on the subject of the lesson:
 - methods: assessment of the correctness of the performance of Skills
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
 3. Assessment of work with a patient on the subject of the class:
 - methods: assessment of: a) communication Skills of communicating with the patient and his parents, b) the correctness of prescribing and evaluating laboratory and instrumental studies, c) compliance with the differential diagnosis algorithm, d) substantiation of the Clinical diagnosis, e) drawing up a treatment plan;
 - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2.
- The grade for one practical session is the arithmetic average of all components and can only have a whole value (5, 4, 3, 2), which is rounded according to the statistical method.

9 Criteria of ongoing assessment at the practical class

Score	Assessment criterion
«5»	The applicant is fluent in the material, actively participates in the discussion and solution of a situational Clinical problem, confidently demonstrates practical skills when examining a sick child and interpreting data from Clinical , laboratory and instrumental studies, expresses his opinion on the topic of the lesson, and demonstrates Clinical thinking.
«4»	The applicant has a good command of the material, participates in the discussion and solution of a situational Clinical problem, demonstrates practical skills when examining a sick child and interpreting data from Clinical , laboratory and instrumental studies with some errors, expresses his opinion on the topic of the lesson, and demonstrates Clinical thinking.
«3»	The applicant does not have enough knowledge of the material, hesitantly participates in the discussion and solution of a situational Clinical problem, demonstrates practical skills when examining a sick child and interpreting Clinical , laboratory and instrumental data with significant errors.
«2»	The applicant does not own the material, does not participate in the discussion and solution of a situational Clinical problem, does not demonstrate practical skills when examining a sick child and interpreting data from Clinical , laboratory and instrumental studies.

The applicant is admitted to a credit subject to the fulfillment of the requirements of the educational program and in the event that he received at least 3.00 points for the ongoing educational activity.

Evaluation of learning outcomes during the final control

Content of the assessed activity	Number of points
Answer to theoretical questions	2
Solution of test tasks KROK-2	1
Skills	2

Criteria for evaluating the learning outcomes of applicants for education according to diff. credit test.

Score	Assessment criterion
Excellent «5»	The applicant for education correctly, accurately and completely completed all the tasks received, clearly and logically answered the questions posed. Thoroughly and comprehensively knows the content of theoretical issues, is fluent in professional and scientific terminology. Thinks logically and builds an answer, freely uses the received theoretical knowledge in the analysis of practical problems. When solving a Clinical problem, he correctly interpreted the anamnesis data, the results of Clinical , laboratory and instrumental studies,

	correctly answered all the questions posed and convincingly substantiated his point of view, could offer an alternative solution to individual issues. When solving a practical problem, he correctly demonstrated the implementation of practical skills, accurately adhered to the algorithm for their implementation.
Good «4»	The applicant completed all the tasks received quite fully, clearly and logically answered the questions posed. Sufficiently deep and comprehensive knowledge of the content of theoretical issues, owns professional and scientific terminology. Thinks logically and builds an answer, uses the acquired theoretical knowledge in the analysis of practical problems. But when presenting some questions, there is not enough depth and argumentation, he makes minor mistakes that are eliminated by the applicant himself when the examiner points them out. When solving a Clinical problem, he made minor errors or inaccuracies in the interpretation of the anamnesis data, the results of Clinical , laboratory and instrumental studies, answered all the questions without significant errors, fully substantiated his point of view, however, the proposal of an alternative variant caused difficulty. When solving a practical problem, he made minor errors in the algorithm and technique for performing the skill, corrected at the direction of the teacher.
Satisfactorily «3»	The applicant for education incompletely completed all the tasks received, the answers to additional and leading questions are fuzzy, vague. Possesses the bulk of theoretical knowledge, uses professional and scientific terminology inaccurately. Experiencing significant difficulties in constructing an independent logical answer, in applying theoretical knowledge in the analysis of practical problems. There are significant errors in the answers. When solving a Clinical problem, he interpreted the anamnesis data, the results of Clinical , laboratory and instrumental studies with errors, did not know individual details, made inaccuracies in answering questions, did not correctly substantiate his answers and interpreted the wording, experienced difficulties in completing tasks and offering alternatives. When solving a practical problem, he made significant errors in the algorithm and technique for performing the skill.
Unsatisfactory «2»	The applicant for education did not complete the tasks received, in most cases did not answer the additional and leading questions of the examiners. He did not master the main body of theoretical knowledge, revealed a low level of professional and scientific terminology. Answers to questions are fragmentary, inconsistent, illogical, cannot apply theoretical knowledge in the analysis of practical problems. There are a significant number of gross errors in the answers. When solving a Clinical problem, he could not interpret the obtained data of the anamnesis, the results of Clinical , laboratory and instrumental studies, answer the questions posed or made significant errors in the answers; could not substantiate his decisions or did it not convincingly. Didn't offer any alternatives. When solving a practical problem, he did not demonstrate or made gross mistakes and inaccuracies in the algorithm and technique of performing the skill.

10. Distribution of points, obtained by the applicant

The average grade in the discipline is converted to the national grade and converted to points on a multi-point scale (200-point scale).

Conversion of traditional assessment into 200-point is carried out by the information and technical department of ONMedU by the special program by the formula:

Average score (current academic performance) x 40.

Conversion table of traditional to multi-point

National score for the discipline	The sum of scores for the discipline
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Less than 120

According to the ECTS rating scale, applicants' achievements in educational discipline, who study on the same course of one specialty, according to their scores, are assessed by means of rank, namely:

Conversion of the traditional evaluation and and ECTS scores

Score on the ECTS scale	Statistical indicator
A	The best 10% applicants
B	Next 25% applicants
C	Next 30% applicants
D	Next 25% applicants
E	Next 10% applicants

10. Methodological support

- Working program in the discipline
- Syllabus
- Methodological recommendations for the practical classes in the discipline
- Methodological recommendations for the individual work of applicants
- Multimedia presentations
- Situational tasks
- Tests on the theme

11. Questions for the final control

1. Clinics of tumors of the anterior mediastinum. Surgical treatment of tumors of the posterior mediastinum.
2. Treatment of acute mediastinitis.
3. Clinical course of a sliding hiatal hernia.
4. Treatment of a sliding hiatal hernia.
5. Treatment of paraesophageal hernia of the esophageal opening of the diaphragm.
6. Clinical forms of lung gangrene.
7. Clinical symptoms of acute lung abscess in the "before opening" stage. Clinical symptoms of acute lung abscess in the "after opening" stage.
8. Additional methods of examination of patients with suppurative lung diseases.
9. Methods of sanitation of the tracheobronchial tree.
10. Treatment of acute lung abscess. Indications for surgical treatment.
11. Acute empyema of the pleura. Etiology, pathogenesis, Clinics.
12. Total pyopneumothorax. Etiology, Clinical course. Additional examination methods for pyopneumothorax. Tactics of treatment of patients with pyopneumothorax. Features of conservative treatment of pyopneumothorax.
13. Indications for puncture of the pleural cavity. Technique for puncture of the pleural cavity.

14. Indications for drainage of the pleural cavity. Technique of drainage of the pleural cavity.
15. Classification of post-traumatic hemothorax. Clinical and radiological signs of small hemothorax.
16. Therapeutic tactics for closed chest injury complicated by large hemothorax
17. Therapeutic tactics for collapsed hemothorax.
18. Diagnosis and treatment of a penetrating wound of the heart.
19. Causes and Clinical course of mediastinal emphysema. Treatment of mediastinal emphysema.
20. Therapeutic tactics for tension (valvular) pneumothorax.
21. Clinics of double fracture of the ribs. Methods of chest wall fixation in floating rib fractures. Therapeutic tactics for floating fracture of the ribs.
22. Stages of mitral stenosis. Clinical manifestations.
23. Pathogenesis and complication of complete atrioventricular blockade. Clinics. Diagnostics.
24. Ischemic heart disease. Clinics, diagnostics, surgical treatment.
25. Heart defects. Clinics, diagnostics, surgical treatment.
26. Esophageal achalasia Clinics, diagnostics. Clinical stages of esophageal achalasia.
- Objective examination data for esophageal achalasia
27. Differential diagnosis of esophageal achalasia.
28. Complication of the bifurcation diverticulum of the esophagus. Clinical course. Epiphrenal diverticulum Clinics. Additional methods of examination.
29. Surgical treatment of Zenker's diverticulum. Intraoperative and postoperative complications.
30. Emergency care for burns of the esophagus. Conservative treatment of burns of the esophagus.
31. Euthyroid and toxic goiter. Classification. Specific research methods.
32. Toxic goiter. Diagnostics. Differential diagnosis. Preoperative preparation.
33. Euthyroid and toxic goiter. Treatment.
34. Disease of the parathyroid glands. Diagnostics. Differential diagnosis. Preoperative preparation. Surgical treatment.
35. Disease of the adrenal glands. Classification. Specific research methods. Diagnostics. Surgical treatment.
36. Mastitis. Classification. Differential diagnosis. Preoperative preparation. Surgical treatment.
37. Dishormonal diseases of the mammary gland. Classification. Specific research methods. Diagnostics. Differential diagnosis. Preoperative preparation. Surgical treatment.
38. Clinical characteristics of thromboembolism and acute thrombosis of the main arteries.
39. Surgical tactics and methods of surgical treatment of thromboembolism and acute thrombosis of the main arteries.
40. Features of the postoperative period after surgery for embolism and acute thrombosis of the main arteries.
41. Etiology, pathogenesis of obliterating atherosclerosis and endarteritis of the lower extremities.
42. Classification of chronic ischemia and the level of occlusion of the main arteries in obliterating atherosclerosis.
43. Methods of examination of the arterial system.
44. Clinical characteristics and methods of surgical treatment of Leriche's syndrome.
45. Indications and contraindications for surgical treatment of obliterating atherosclerosis of the main arteries of the lower extremities.

46. Indications and contraindications for surgical treatment of obliterating endarteritis of the lower extremities.
47. Etiology of varicose veins. Pathogenesis of venous hemodynamic disorders in varicose veins.
48. Clinical characteristics of varicose disease of the lower extremities,
49. Functional tests to determine the state of the valves of the superficial, communicant and deep veins of the lower extremities. Methods and indications for phlebography.
50. Conservative treatment of varicose veins of the lower extremities.
51. Treatment of trophic ulcers caused by chronic venous insufficiency.
52. Indications and contraindications for surgical treatment of varicose veins of the lower extremities.
53. Prevention of varicose veins of the lower extremities.
54. Etiology of thrombophlebitis of the saphenous veins of the lower extremities. Pathogenesis and Clinics of migrating thrombophlebitis of subcutaneous veins.
55. Clinical manifestations of acute thrombophlebitis of the saphenous veins of the lower extremities.
56. Indications and contraindications for surgical treatment of acute thrombophlebitis of the saphenous veins of the lower extremities. Operation technique for acute thrombophlebitis of the saphenous veins of the lower extremities
57. Etiological and pathogenetic factors of deep vein thrombosis of the lower extremities.
58. Clinical manifestations of vein thrombosis of the legs. Clinical manifestations of iliofemoral thrombosis.
59. Clinical feature of snow-white phlegmasia.
60. Clinical characteristics of blue phlegmasia.
61. Differential diagnosis of deep vein thrombosis of the lower extremities.
62. Conservative treatment of deep vein thrombosis of the lower extremities.
63. Ways to prevent PE in the surgical treatment of iliofemoral thrombosis.
64. Etiology, pathogenesis of post-thrombophlebitic syndrome. Features of venous hemodynamics in patients with PTFS.
65. Clinical characteristics of the sclerotic form of post-thrombophlebitic syndrome.
66. Clinical characteristics of varicose form of post-thrombophlebitic syndrome.
67. Clinical characteristics of the edematous and painful form of post-thrombophlebitic syndrome.
68. Clinical characteristics of the ulcerative form of post-thrombophlebitic syndrome.
69. Features of Clinical symptoms in patients with iliofemoral PTFS.
70. Differential diagnosis of PTFS.
71. Conservative treatment of PTFS.
72. Surgical treatment of patients with PTFS.
73. Etiology of lymphostasis. The pathogenesis of lymphedema.
74. Clinical characteristics of the stage of lymphedema.
75. Clinical characteristics of the stage of fibroedema.
76. Indications and methods of conservative treatment of lymphostasis.
77. Types of surgical interventions aimed at restoring the outflow of lymph.
78. Clinics, diagnosis and treatment of diseases of the pericardium.
79. Clinics, diagnosis and treatment of aortic aneurysm.
80. Clinics, diagnosis and treatment of arterial aneurysm.

LIST OF PRACTICAL SKILLS FOR THE FINAL CONTROL

- 1) Patient examination technique: examination of lymph nodes (cervical, axillary, inguinal), peripheral arteries and veins.

- 2) Methods for examining the mammary glands.
- 3) Methods for examining the thyroid gland.
- 4) Methods for restoring patency of the upper respiratory tract. Artificial lung ventilation (ALV) methods
- 5) Heart massage.
- 6) Interpretation of Clinical blood and urine tests.
- 7) Interpretation of biochemical blood tests: bilirubin, its fractions; urea, nitrogen, creatinine; blood proteins, acid-base state, blood electrolytes, coagulogram, urea.
- 8) Reading radiographs: overview, chest x-ray (pneumothorax, hydro - or hemothorax).
- 9) Reading radiographs: radiopaque studies of the esophagus

12. Recommended literature

Basic.

1. Surgery = Хірургія : textbook for applicants of higher medical educational institutions of Ministry of Health of Ukraine / K. M. Amosova [et al.] ; ed.: Ya. S. Bereznyts'kyu, M. P. Zakharash, V. G. Mishalov. - 3rd ed. - Vinnytsya : Nova Knyha, 2021. - 712 p.
2. Clinical anatomy and operative surgery = Клінічна анатомія та оперативна хірургія : textbook for English-speaking foreign applicants / O. V. Tsyhykalo. - Vinnytsia : Nova knyha, 2020. - 528 p. : fig. - Бібліогр.: с. 527.
3. General surgery : [пер. з укр.] / [V. P. Andriushchenko et al.] ; ed. by Bereznytsky Ya. S. [et al.] . - 2nd ed. - Vinnytsia : Nova Knyha, 2020. - 327 p.
4. General surgery : [textbook]: [пер. з укр.] / V. P. Andriushchenko et al.; ed. by Bereznytsky Ya. S. [et al.] . - 2nd ed. - Vinnytsia: Nova Knyha, 2020. - 327 p.: fig., tab.
5. General surgery = Загальна хірургія : textbook for applicants of the higher medical education of the Ministry of Health of Ukraine / V. P. Andriushchenko [et al.] ; ed. Ya. S. Bereznytskyu [et al.]. - 2nd ed. - Vinnytsia : Nova Knyha, 2020. - 328 p. : il.
6. General surgery = Загальна хірургія : textbook for applicants of higher educational institutions / V. P. Andriushchenko [et al.] ; ed. Ya. S. Bereznytsky [et al.]. - Vinnytsya : Nova Knyha, 2019. - 328 p. : il.
7. General surgery = Загальна хірургія : textbook for applicants of higher medical educational establishments / S. D. Khimich [et al.] ; ed.: S. D. Khimich, M. D. Zheliba. - Kyiv : AUS Medicine Publishing, 2019. - 536 p.: il.
8. General surgery = Загальна хірургія : / V. P. Andriushchenko [et al.] ; ed. By Ya. S. Bereznytskyi, M. P. Zakharash, V. G. Mishalov, V. O. Shidlovskiyi. - Vinnytsia : Nova knyha, 2019. - 327 p.
9. Clinical Anatomy and operative surgery = Клінічна анатомія та оперативна хірургія : textbook for applicants of higher medical education establishments / O. M. Slobodian [et al.] ; ed. V. Yu. Yershov. - Kyiv : AUS Medicine Publishing, 2018. - 504 p. : il.
10. Sidawy, Anton N. and Perler, Bruce A., "Rutherford's Vascular Surgery and Endovascular Therapy" (2018). Faculty Bookshelf. -133 p.

Additional.

1. Topographical anatomy and operative surgery : textbook for English-speaking foreign

- applicants / O. V. Tsyhykalo. - 3rd ed. - Vinnytsia : Nova Knyha, 2018. - 528 p.
2. Topographical anatomy and operative surgery Топографічна анатомія та оперативна хірургія : textbook for English-speaking foreign applicants / O. V. Tsyhykalo. - 3rd ed. - Vinnytsya : Nova Knyha, 2018. - 528 p. : il. Beynon, J.,
 3. Harris, D.A., Davies, M., Evans, M. (Eds.) Coloproctology. A Practical Guide. Springer 2017. - 338 p.
 4. Surgery : [textbook for applicants of higher med. educational institutions] / [Kateryna M. Amosova et al.] ; ed. by Berezhnyts'kyu Ya. S., Zakharash M. P., Mishalov V. G. - Vinnytsia : Nova Knyha, 2016. - 711 p. : fig. - (Національний підручник).

13. Electronic information resources

1. <http://moz.gov.ua> – Міністерство охорони здоров'я України
2. www.ama-assn.org – Американська медична асоціація / American Medical Association
3. www.who.int – Всесвітня організація охорони здоров'я
4. www.dec.gov.ua/mtd/home/ - Державний експертний центр МОЗ України
5. <http://bma.org.uk> – Британська медична асоціація
6. www.gmc-uk.org - General Medical Council (GMC)
7. www.bundesaerztekammer.de – Німецька медична асоціація
8. <http://medforum.in.ua/partners-> Асоціація хірургів України
9. <http://endoscopy.com.ua/> - Асоціація ендоскопічних хірургів України
10. <http://thoracic-surgery.com.ua/> - Асоціація торакальних хірургів України
11. <https://youcontrol.com.ua/> - Асоціація судинних хірургів України