

DANYLO HALYTSKYY LVIV NATIONAL MEDICAL UNIVERSITY

Department of Pediatric Surgery

“APPROVED”

First Vice-Rector on
Scientific and Pedagogical Work
Associate Professor Irina SOLONYNKO

“ ” _____ 2023

DISCIPLINE PROGRAM

OC- 2 “ Pediatric Surgery ”
Individual profile course of choice
“Surgery ”
Second (master's) level of higher education
Field of knowledge 22 "Health"
Specialty 222 "Medicine"
6th year

Discussed and approved at the
educational-methodical meeting of the
Department of Pediatric Surgery
Minutes № 9 dated “24” April 2023
Head of pediatric surgery department
_____assoc.prof.Kuzyk A.

Approved
by the Profile Methodical Board on
Surgical Disciplines
Minutes № 20 dated “27” April 2023
Head of profile methodological
commission __prof. Andryushchenko A.

Working curriculum in the discipline of "Pediatric Surgery", individual profile course of choice "Surgery" for graduates of the second (master's) level, field of knowledge 22 "Health" in the specialty 222 "Medicine" composed:

Kuzyk A. - Head of the Department of Pediatric Surgery, MD, PhD, Associate Professor

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INTRODUCTION

The program of study of the discipline "Pediatric Surgery"

According to the *second (master's) level* of higher education
field of knowledge 22 "Health"
specialty 222 "Medicine"
educational program of master of medicine

Annotation

Pediatric surgery is one of the fundamental clinical disciplines in the system of higher medical education, the knowledge of which is necessary for the quality training of professionals in health care system. This is due to the fact that knowledge of pediatric surgery occupies a leading position in treatment of surgical pathology in children. In recent decades, pediatric surgery has been supplemented by new methods of diagnosis and treatment. State standards of higher medical education also apply that a doctor, pediatric surgeon must be able to diagnose and use different diagnostic methods and choose the best methods of surgical treatment in pediatric surgery.

Knowledge of pediatric surgery will allow the future doctor to choose the optimal diagnostic method for pathologies of different organs and systems, to interpret the data of diagnostic methods, evaluate the possibilities of different treatments and choose the optimal method of surgical treatment of surgical pathology in children.

Discipline	Number of credits, hours, including			Year of study (semester)	Type of control	
	Total Credits/hours ECTS	Auditory				Student's out of class work
		Lectures (hours)	Practical classes (hours)			
Pediatric Surgery Individual course «Surgery»	1,5 credit / 45 hours	-	24	21	6 course (11-12 semester)	Credit

The subject of the study of the discipline is: surgical pathology in children. Pediatric surgery is studying possibilities of using methods of treatment of surgical pathology in children.

Interdisciplinary connections:

The studying of the discipline "Pediatric Surgery" is based on knowledges of normal physiology, normal anatomy, pathological anatomy, topographic anatomy and operative surgery, microbiology, internal medicine, pediatrics, obstetrics and gynecology, endocrinology, urology, traumatology and orthopedics, anesthesiology, endoscopic surgery, oncology, which students also receive during studying of pediatric surgery. It involves the integration of teaching with these disciplines and the formation of skills to apply knowledge of pediatric surgery in further education and professional activities.

1. PURPOSE AND TASKS OF THE COURSE

1. Methods and aims of the discipline

1.1. The aim of the discipline "Pediatric Surgery" is to acquire theoretical and practical knowledge of etiology, pathogenesis, classification, clinical manifestations, methods of diagnosis, conservative and surgical treatment, prevention and rehabilitation of children with surgical pathology, skills of clinical, laboratory and instrumental examination of the child in compliance with medical ethics and deontology principles, the acquisition by the student professional skills in maintaining medical records.

Acquisition by the student of knowledge and professional skills in differential diagnosis of surgical diseases of children, dispensary supervision of healthy and sick children in an outpatient setting and

providing emergency care during the most common emergencies in children based on knowledge of age, anatomical and physiological features of the child's body.

Formation of the ability to use knowledge, skills, abilities to solve typical problems of the doctor in health care, the scope of which is provided by certain lists of syndromes and symptoms of diseases, emergencies, physiological conditions.

1.2. The main tasks of studying the discipline "Pediatric Surgery" are:

- to teach students to identify typical clinical syndromes and symptoms in the clinic of children's surgical diseases;
- to diagnose and provide medical assistance in case of emergency conditions in the clinic of children's surgical diseases;
- interpret the general principles of treatment, rehabilitation and prevention of the most common surgical diseases in children;
- determine the prognosis for life, health and quality of life in common surgical diseases and injuries in children;
- draw up an examination plan and interpret the results of laboratory and instrumental examination methods in children;
- demonstrate the ability to perform necessary medical manipulations;
- to provide emergency medical assistance in urgent cases in children's surgery;
- demonstrate the ability to maintain medical documentation;
- to possess the moral and deontological principles of professional subordination in children's surgery.

1.3. Competencies and learning outcomes, the formation of which is facilitated by the discipline (the relationship with the normative content of the training of higher education graduates, formulated in terms of the results of training in the Standard of Higher Education).

In accordance with the requirements of the Standard of Higher Education, discipline ensures students' acquisition of *competences*:

- **Integral competence:** The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy

-**general (GC):**

GC1. Ability to abstract thinking, analysis and synthesis

GC2 Ability to learn and master modern knowledge

GC3. Ability to apply knowledge in practical situations

GC4. Knowledge and understanding of the subject area and understanding of the professional activity

GC5. Ability to adapt and act in a new situation

GC6. Ability to make informed decisions

GC7. Ability to work in a team

GC8. Interpersonal skills

GC10. Skills in the use of information and communication technologies

GC11. Ability to search, process and analyze information from various sources

GC12. Definiteness and perseverance in terms of tasks and responsibilities

GC13. Awareness of equal opportunities and gender issues.

GC14 The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine..

GC15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding 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 technologies, to use various types and forms of motor activity for active rest and leading a healthy lifestyle.

- special (professional) (PC):

- PC1. Skills of interviewing and clinical examination of a patient with surgical pathology
- PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results
- PC3. Ability to establish a preliminary and clinical diagnosis of the disease
- PC4. Ability to determine the required mode of work and rest in the treatment of diseases
- PC5. Ability to determine the nature of nutrition during the treatment and prophylaxis of diseases
- PC6. Ability to determine the principles and nature of treatment and prophylaxis of diseases
- PC7. Ability to diagnose emergencies
- PC8. Ability to determine tactics and provide emergency medical care
- PC9. Ability to carry out medical and evacuation measures Emergency care skills
- PC10. Skills to perform medical manipulations
- PC11. 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 ethical responsibility
- PC 13. Ability to carry out sanitary and hygienic and preventive measures.
- PC14. Ability to plan and carry out preventive and anti-epidemic measures for infectious diseases.
- PC16. Ability to maintain medical documentation, including electronic forms.
- PC17. The ability to assess the impact of the environment, socio-economic and biological determinants on the state of health of an individual, family, population.
- PC18. The ability to analyze the activity of a doctor, unit, health care institution, ensure the quality of medical care and increase the efficiency of the use of medical resources.
- PC19. The ability to organize and integrate the provision of medical assistance to the population and the marketing of medical services.
- PC21. Convey understandable one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.
- PC24. Adhere of ethical principles when working with patients and laboratory animals
- PC25. Adhere of professional and academic integrity, to be responsible for the reliability of the obtained scientific results

Detailing of competencies in accordance with the descriptors in the form of the «Competence Matrix».

Competency Matrix

№	Competency	Knowledge	Skill	Communication	Autonomy and responsibility
Integral competence					
The ability to solve complex problems, including innovative ones in the field of medicine. The ability to continue learning with a high degree of autonomy.					
General competences					
1.	Ability to abstract thinking, analysis and synthesis	Have abstract thinking, analysis and synthesis	To be able to think abstractly, to analyze and synthesize knowledge	The ability to effectively use the results of abstract thinking	To be responsible for the results of abstract thinking, analysis and synthesis.
2.	Ability to learn and master modern knowledge	Have a modern knowledge	To be able to learn and use modern knowledge	The ability to use modern knowledge	To be responsible for the results of using modern knowledge
3.	Ability to apply knowledge in practical situations	Have specialized conceptual knowledge acquired in the learning process.	To be able to solve complex tasks and problems that arise in professional activity.	Clear and unambiguous conclusions knowledge and explanations that	To be responsible for making decisions in difficult conditions

				justify them to specialists and non-specialists.	
4.	Knowledge and understanding of the subject area, understanding of the professional activity.	Have in-depth knowledge of the structure of professional activity.	To be able to carry out professional activities that require updating and integration of knowledge.	The ability to effectively form a communication strategy in professional activities.	To be responsible for professional development, the ability for further professional training with a high level of autonomy.
5.	Ability to adapt and act in a new situation	Have deep knowledge about adaptation and action in a new situation.	To be able to use the acquired knowledge to adapt and act in a new situation.	Communicate effectively in a new situation.	To be responsible for actions in a new situation.
6.	Ability to make informed decisions	Have deep knowledge to justify the decision.	To be able to make informed decisions based on knowledge.	Use the acquired knowledge to justify the decision.	To be responsible for reasoned decisions.
7.	Ability to work in a team	Know teamwork methods.	Be able to work in a team.	Use acquired knowledge in teamwork	Be responsible for working in a team
8.	Interpersonal skills	Have interpersonal skills	Be able to use the skills of interpersonal interaction	Use acquired knowledge for interpersonal interaction	To be responsible for interpersonal interaction
10.	Skills in the use of information and communication technologies	Have deep knowledge in the field of information and communication technologies used in professional activities.	To be able to use information and communication technologies in a professional field that requires updating and integration of knowledge.	Use information and communication technologies in professional activities	To be responsible for the development of professional knowledge and skills.
11.	Ability to search, process and analyze information from various sources	Have the skills to find, process and analyze information from various sources.	Be able to search, process and analyze information from various sources.	Use search, processing and analysis of information from various sources.	Be responsible for searching, processing and analyzing information from various sources.
12.	Definiteness and perseverance in terms of tasks and responsibilities	Possess persistence in relation to assigned tasks and assumed responsibilities	To be able to persevere in performing assigned tasks and responsibilities	Communicate with others when performing tasks and responsibilities	To be responsible for the performance of one's duties and assigned tasks
13.	Awareness of equal opportunities and gender issues.	Have knowledge of gender issues	To be able to solve issues related to gender issues	Use acquired knowledge on issues of equal opportunities and gender issues.	To be responsible for issues of equal opportunities and gender issues.
14.	The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic)	To have in-depth knowledge about the realization of one's rights and responsibilities as a member of society, to be aware of the values of a civil (free democratic) society	To be able to realize one's rights and responsibilities as a member of society, to be aware of the values of a civil (free democratic) society and the need for its sustainable	To exercise one's rights and responsibilities as a member of society, to be aware of the values of civil (free democratic) society and the need for its sustainable	To be responsible for one's rights and duties as a member of society, to be aware of the values of a civil (free democratic) society and the

	society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine	and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.	development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.	development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.	need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.
15.	The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding 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 technologies, to use various types and forms of motor activity for active rest and leading a healthy lifestyle.	Know how to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding 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 technologies, use different types and forms of motor activity for active recreation and leading a healthy lifestyle.	To be able to preserve and multiply 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 technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle.	Effectively use and multiply 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 technologies, use different types and forms of motor activity for active recreation and leading a healthy lifestyle.	To be responsible for preserving and multiplying the moral, cultural, scientific values and achievements of society on the basis of understanding 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, equipment and technologies, the use of various types and forms of motor activities for active recreation and leading a healthy lifestyle.

Special (professional, subject) competences (PC)

1.	Skills of interviewing and clinical examination of a patient with surgical pathology	Have in-depth knowledge of collecting medical information from a patient and analyzing clinical data	Be able to use knowledge of collecting medical information from a patient and analyzing clinical data	Effectively use the acquired knowledge for interviewing and clinical examination of the patient	Be responsible for the interview and clinical examination of the patient
2.	Ability to determine the required list of laboratory and instrumental studies and evaluate their results	Have in-depth knowledge of laboratory and instrumental research and evaluation of their results	Be able to use laboratory and instrumental research and evaluate their results	Use acquired knowledge to evaluate laboratory and instrumental studies and evaluate their results	To be responsible for the assessment of laboratory and instrumental studies and evaluation of their results
3.	Ability to establish a preliminary and clinical diagnosis	Have special knowledge before establishing a	Be able to establish a preliminary and clinical diagnosis of	To substantiate the establishment of a preliminary and	Be responsible for establishing a preliminary and

	of the disease	preliminary and clinical diagnosis of the disease	the disease	clinical diagnosis of the disease	clinical diagnosis of the disease
4.	Ability to determine the required mode of work and rest in the treatment of diseases	Have the knowledge to determine the necessary regime of work and rest in the treatment and prevention of diseases	Be able to prescribe the necessary regime of work and rest in the treatment and prevention of diseases	To substantiate the necessary regime of work and rest in the treatment and prevention of diseases	To be responsible for the appointment of the necessary regime of work and rest in the treatment and prevention of diseases
5.	Ability to determine the nature of nutrition during the treatment and prophylaxis of diseases	Have knowledge to determine the nature of nutrition in the treatment and prevention of diseases	Be able to prescribe the necessary diet for the treatment and prevention of diseases	To justify the necessary diet in the treatment and prevention of diseases	Be responsible for the prescribed diet in the treatment and prevention of diseases
6.	Ability to determine the principles and nature of treatment and prophylaxis of diseases	Have knowledge to determine the principles and nature of treatment and prevention of diseases	Be able to prescribe appropriate treatment and prevention of diseases	To justify the appropriate treatment and prevention of diseases	Be responsible for prescribed treatment and prevention
7.	Ability to diagnose emergencies	Have special knowledge to diagnose emergency conditions	Be able to diagnose emergency conditions	To substantiate the diagnosis of emergency conditions	Be responsible for diagnosing emergency conditions
8.	Ability to determine tactics and provide emergency medical care	Have specialized knowledge to determine the tactics of providing emergency medical care	Be able to determine the tactics of providing emergency medical assistance	To justify the tactics of providing emergency medical aid	Be responsible for determining the tactics of providing emergency medical care
9.	Ability to carry out medical and evacuation measures Emergency care skills	Have the knowledge to carry out medical evacuation measures	Be able to carry out medical evacuation measures	Use acquired knowledge to carry out medical evacuation measures	To be responsible for carrying out medical evacuation measures
10.	Skills to perform medical manipulations	Have knowledge to perform medical manipulations	Be able to perform medical manipulations	Use acquired knowledge to perform medical manipulations	Be responsible for performing medical manipulations
11.	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 ethical responsibility	Have knowledge of solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.	Be able to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.	Use acquired knowledge to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.	Be responsible for solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.

16.	Ability to maintain medical documentation, including electronic forms.	Have knowledge of medical documentation	Be able to keep medical records	Use the acquired knowledge when maintaining medical documentation	Be responsible for maintaining medical records
21.	Convey understandable one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.	Have the knowledge to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.	Be able to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to students.	To substantiate one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to persons who are studying.	Be responsible for the clarity and ambiguity of conveying one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.
24.	Adhere of ethical principles when working with patients and laboratory animals	Have knowledge of compliance with ethical principles when working with patients and laboratory animals	To be able to adhere to ethical principles when working with patients and laboratory animals.	To use acquired knowledge of compliance with ethical principles when working with patients and laboratory animals.	Be responsible for compliance with ethical principles when working with patients and laboratory animals.
25.	Adhere of professional and academic integrity, to be responsible for the reliability of the obtained scientific results	Have knowledge of professional and academic integrity, to be responsible for the reliability of the obtained scientific results	To be able to observe professional and academic integrity, to be responsible for the reliability of the obtained scientific results	To use acquired knowledge of professional and academic integrity, to be responsible for the reliability of the obtained scientific results	Be responsible for compliance with professional and academic integrity, to be responsible for the reliability of the obtained scientific results

Program learning results (PLR):

Integrative final program learning outcomes, the formation of which academic discipline promotes:

According to the requirements of the educational and professional program, students must **know**:

- 1) definition of nosologies in pediatric surgery;
- 2) etiology, pathogenesis of emergence and development of surgical pathology;
- 3) clinical manifestations of surgical diseases;
- 4) possible complications with surgical pathology in children;
- 5) methods and standard schemes of survey, physical examination of children of different ages;
- 6) stages and methods of examination of a child with surgical pathology;

- 7) methodology for conducting laboratory and instrumental research;
- 8) possible changes in laboratory and instrumental examination methods observed in surgical diseases;
- 9) emergency situations in the children's surgery clinic and stages of providing emergency medical care to a child with surgical pathology;
- 10) algorithms for performing medical manipulations;
- 11) basic principles of conservative and surgical treatment in pediatric surgery;
- 12) regulatory documents for maintaining medical records of a patient with surgical pathology;
- 13) collection of medical information from the patient and analysis of clinical data;
- 14) establish a preliminary and clinical diagnosis of the disease;
- 15) determine the necessary regime of work and rest in the treatment and prevention of diseases;
- 16) determine the nature of nutrition in the treatment and prevention of diseases;
- 17) determine the principles and nature of treatment and prevention of diseases;
- 18) conducting medical evacuation measures;
- 19) solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility;
- 20) have the knowledge to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to persons who are studying;
- 21) have knowledge of compliance with ethical principles when working with patients, laboratory animals;
- 22) have knowledge of compliance with professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.

Be able to:

- 1) determine causal factors, mechanisms of pathophysiological changes in children's surgical pathology, stages of development, clinical manifestations;
- 2) conduct a physical examination of children with surgical pathology;
- 3) establish a preliminary and clinical diagnosis;
- 4) prescribe laboratory and instrumental research methods to confirm the diagnosis;
- 5) carry out differential diagnosis;
- 6) predict the occurrence of possible complications; interpret the results of objective examination, laboratory and instrumental studies;
- 7) determine the tactics of managing a child with surgical pathology and providing emergency medical care;
- 8) choose treatment tactics (conservative, surgical) in children's surgery;
- 9) perform medical manipulations;
- 10) provide emergency medical care;
- 11) collect medical information from the patient and analyze clinical data;
- 12) act socially responsibly and consciously;
- 13) act on the basis of ethical considerations (motives).
- 14) prescribe the necessary regime of work and rest in the treatment and prevention of diseases;
- 15) prescribe the necessary diet for the treatment and prevention of diseases;

- 16) prescribe appropriate treatment and prevention of diseases;
- 17) diagnose emergency conditions;
- 18) conduct medical evacuation measures;
- 19) to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility;
- 20) keep medical documentation;
- 21) to clearly and unambiguously convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to persons who are studying;
- 22) adhere to ethical principles when working with patients;
- 23) to observe professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.

Learning outcomes for the discipline:

Learning outcome	Program learning result code	Competency code
Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.	PLR 1	GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC10, GC11, GC12, GC13, GC14, GC15.
Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.	PLR 2	GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC10, GC11, GC12, GC13, GC14, GC15.
Specialized conceptual knowledge that includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems.	PLR 3	GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8, GC10, GC11, GC12, GC13, GC14, GC15.
To isolate and identify the leading clinical symptoms and syndromes according to standard methods, using the preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease.	PLR 4	GC1, GC2, GC3, GC6, GC7, GC8; PC1, PC2, PC3, PC24.
Collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis, taking into account the age of the patient.	PLR 5	GC1, GC2, GC3, GC6, GC7, GC8; PC1, PC2, PC24.
To establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, differential diagnosis, observing the relevant ethical and legal norms, under the control of the head physician in the conditions of the health care institution.	PLR 6	GC1, GC2, GC3, GC6, GC7, GC8; PC1, PC2, PC3, PC24.
Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) of patients with diseases of organs and body systems for differential diagnosis of diseases.	PLR 7	GC1, GC2, GC3, GC6, PC2.
Determine the main clinical syndrome or what causes the	PLR 8	GC1, GC2, GC3, GC5, GC6, GC 7,

severity of the victim/victim's condition (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.		GC 8, GC 12; PC1, PC 2, PC 3, PC 7, PC 8, PC11, PC 24.
Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the age of the patient, in the conditions of the health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to substantiate personalized recommendations under the supervision of a doctor	PLR 9	GC1, GC2, GC3, GC5, GC6, GC 7, GC 8, GC 12; PC 4, PC 6, PC 8, PC 9, PC 10, PC 11, PC 24.
Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.	PLR 10	GC1, GC4, GC6; PC4, PC5,PC6.
Determine tactics and provide emergency medical care in emergency situations in limited time in accordance with existing clinical protocols and standards of treatment.	PLR 14	GC1, GC3, GC4, GC5, GC6; PC8, PC11.
Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment.	PLR 16	GC1, GC2, GC3, GC4, GC5, GC6, GC7, GC8; GC10, GC11, GC12, GC13, GC14, GC15.
Perform medical manipulations in the conditions of a medical institution, at home or at work on the basis of a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.	PLR 17	GC1, GC2, GC3, GC4, GC5, GC6; PC10,PC24.
To determine the state of functioning and limitations of a person's vital activities and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data about the disease and its course, peculiarities of the person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.	PLR 18	GC1, GC2, GC3, GC4, GC5, GC6; PC16, PC24.
To plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.	PLR 19	GC1, GC2, GC3, GC4, GC 5, GC6, GC 7, GC 8, GC 10, GC 11, GC 12, GC 13, GC 14; PC 1, PC 2, PC 3, PC 9, PC 11, PC 13, PC 17, PC 21
Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.	PLR 21	GC1, GC2, GC3, GC4, GC6, GC10, GC11, GC12;
Apply modern digital technologies, specialized software, and statistical data analysis methods to solve complex healthcare problems.	PLR 22	GC1, GC2, GC3, GC4, GC5, GC6, GC10; PC11, PC21.
Assess the impact of the environment on the state of human	PLR 23	GC1, GC2, GC3, GC4, GC5, GC6,

health in order to assess the state of morbidity of the population.		GC 7, GC 8, GC 10, GC 11, GC 12; PC 1, PC 2, PC 3, PC 4, PC 11, PC 13, PC 16, PC 17, PC 20
To organize the necessary level of individual safety (own and the persons he cares for) in case of typical dangerous situations in the individual field of activity.	PLR 24	GC1, GC2, GC3, GC4, GC5, GC6, GC8, GC12;
It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists.	PLR 25	GC1, GC2, GC3, GC4, GC5, GC6; PC21.
Manage work processes in the field of health care, which are complex, unpredictable and require new strategic approaches, organize the work and professional development of personnel taking into account the acquired skills of effective teamwork, leadership positions, appropriate quality, accessibility and justice, ensuring the provision of integrated medical help	PLR 26	GC1, GC2, GC3, GC4, GC5, GC6, GC 7, GC 8, GC 10, GC 11, GC 12, GC 13, GC 14; PC11, PC19, PC21
Communicate freely in the national and English languages, both orally and in writing to discuss professional activities, research and projects.	PLR 27	GC1, GC2, GC3, GC5, GC6, GC11, GC12.
Make effective decisions about health care problems, evaluate the necessary resources, take into account social, economic and ethical consequences.	PLR 28	GC 3, GC 4, GC 6, GC 10, GC 11, GC 12, GC 13; PC11, PC17, PC18, PC21, PC25

2. Information volume of the educational discipline

1 ECTS credit of 30 hours is assigned to the study of the academic discipline.

3. The structure of the educational discipline

Topic	Lectures	Practical classes	Out of classwork	Individual work
Pediatric Surgery				
1. Topic 1. Malformations of the respiratory system. Congenital diaphragmatic hernias	-	6	-	-
2. Topic 2. Congenital malformations of gastrointestinal tract. Anterior abdominal wall defects, liver and biliary tract.	-	6	-	
3. Topic 3. Congenital malformations of bones and joints. Thoracic abnormalities	-	6	-	
4. Topic 4. Congenital kidney abnormalities.	-	6	-	
5. Topic 5. Endoscopic methods of operations.	-	-	4	
6. Topic 6. Neck cysts. Cysts of parenchymal organs.	-	-	4	
7. Topic 7. Congenital neoplasms in children.	-	-	4	
8. Topic 8. Parenteral nutrition in children. Short bowel syndrome. Peculiarities of enteral feeding in the early preoperative period.		-	3	
9. Topic 9. Intrauterine operations.		-	3	
10. Topic 10. Congenital malformation of urinary system		-	3	
Total 45 hours / 1,5 ECTS credit	-	24	21	-
Final control				Credit

4. Thematic plan of lectures

By Order No. 881-z dated March 15, 2022. the curriculum does not provide for lectures.

5. Thematic plan of practical classes

№	Topic name	Hours
1.	Malformations of the respiratory system (organic, compressive and functional stenoses of the respiratory tract; vascular rings and loops; agenesis, aplasia, hypoplasia of the lungs; congenital lung cysts; congenital emphysema; pulmonary sequestration). Congenital diaphragmatic hernias	6
2.	Malformations of the digestive system (pylostenosis; atresia, stenoses and fistulas of the esophagus; achalasia and chaliasia of the cardia; duodenal intestinal obstruction; anomalies of rotation and fixation of the intestine; meconial intestinal obstruction; atresias and stenoses of the small and large intestine; Hirschsprung's disease; anorectal malformations; Crohn's disease, nonspecific ulcerative colitis). Malformations of the anterior abdominal wall, liver and biliary tract (omphalocele, gastroschisis; umbilical and inguinal hernia; biliary atresia; cysts of the liver and bile ducts).	6
3.	Malformations of the musculoskeletal system (congenital dislocation of the hip; congenital muscular torticollis; congenital limb pathologies; congenital spinal deformities; congenital malformations of the hand and foot: syndactyly, polydactyly, ectrodactyly). Congenital malformations of the chest in children (funnel-shaped deformity; keel-shaped deformity; isolated rib deformities).	6
4	Malformations of the kidneys (anomalies of position and relationship; anomalies of quantity; anomalies of size and structure; cystic anomalies of the kidneys).	6
Total		24

6. Thematic plan of out of class work

№	Topic name	Hours	Type of control
1.	Endoscopic methods of operations (on the stomach and esophagus; on the respiratory tract and lungs; on the distal parts of the gastrointestinal tract; on the organs of the genitourinary system).	4	Current control in practical classes
2.	Neck cysts. Cysts of parenchymal organs.	4	Current control in practical classes
3.	Congenital neoplasms in children (benign neoplasms; malignant neoplasms; tumors of the abdominal cavity; tumors of the extraperitoneal space).	4	Current control in practical classes
4.	Parenteral nutrition in children. Feline syndrome. Peculiarities of enteral feeding in the early preoperative period.	3	Current control in practical classes
5.	Intrauterine operations (for congenital diaphragmatic hernias; for meningocele).	3	Current control in practical classes
6.	Malformations of the urinary system (megaureter, hydronephrosis, ureterohydronephrosis; varicocele; abnormalities of the ureters and bladder; bladder exstrophy; infravesical obstruction).	3	Current control in practical classes
Total		21	

7. Individual tasks (disease histories, forensic medical reports, toxicological research reports, course and diploma, master's theses) are not planned in the curriculum.

8. Teaching methods

Types of educational activities of students according to the curriculum are: practical classes, independent work of students (IWS), in the organization of which teachers' consultations play a significant role.

Practical classes include:

- 1) conducting an objective examination of a healthy child by students;
- 2) examination of children with surgical pathology;
- 3) detection of symptoms and syndromes observed in surgical diseases;
- 4) preliminary and clinical diagnosis;
- 5) differential diagnosis of various surgical diseases that cause emergencies in pediatric patients;
- 6) providing pre-hospital care to children with surgical pathology;
- 7) appointment of modern treatment of children with surgical diseases;
- 8) solving situational clinical problems, problems according to the type of licensing exam "Step-2" and test problems.

9. Control methods

Method of oral control. Oral control is carried out by means of an individual survey.

Test control method. Such control is based on tests - special tasks, the performance (or non-performance) of which indicates the presence (or lack) of certain knowledge and skills among students.

Method of self-control. It involves the formation of students' ability to independently control the degree of assimilation of educational material, to find mistakes and inaccuracies, and to determine ways to eliminate them.

Types of control: current and final.

The form of final control of the success of the study in the study of the discipline is the assessment.

Students who have completed all types of work provided for in the initial program, completed all training sessions, and scored at least the minimum number of points for the disciplines studied are admitted to the final examination.

10. Current control

Current control is carried out during practical classes and is aimed at checking students' assimilation of educational material. Forms of current control are:

- a) test tasks with the choice of one correct answer, with the determination of the correct sequence of actions, with the determination of correspondence, with the determination of a certain area on a photo or diagram ("recognition");
- b) individual oral survey, interview;
- c) solving typical situational problems;

Forms of assessment of current educational activities are standardized and include control of theoretical and practical training.

10.1. Assessment of current educational activities. During the evaluation of the mastery of each topic for the current educational activity, the student is given grades on a 4-point (national)

scale. At the same time, all types of work provided for by the discipline program are taken into account. The student must receive a grade on each topic for further conversion of grades into points on a multi-point (200-point) scale.

At each practical lesson, the teacher evaluates the knowledge of each student on a four-point scale.

Excellent ("5") - The student correctly answered 90-100% of tests of format A. Correctly, clearly and logically and completely answers all standardized questions of the current topic, including questions of the lecture course and independent work. Closely links theory with practice and correctly demonstrates performance (knowledge) of practical skills. Solves situational problems of increased complexity, knows how to summarize the material.

Good ("4") - The student correctly answered 70-89% of tests of format A. Correctly and essentially answers the standardized questions of the current topic, lecture course and independent work. Demonstrates performance (knowledge) of practical skills. Correctly uses theoretical knowledge when solving practical tasks. Able to solve situational problems of easy and medium complexity. Possesses the necessary practical skills and methods of their implementation in an amount that exceeds the required minimum.

Satisfactory ("3") - The student correctly answered 50-69% of tests of format A. Incompletely, with the help of additional questions, answers standardized questions of the current topic, lecture course and independent work. Cannot independently construct a clear, logical answer. During the answer and demonstration of practical skills, the student makes mistakes. The student solves only the easiest problems.

Unsatisfactory ("2") - The student answered less than 50% of tests of format A. Does not know the material of the current topic, cannot construct a logical answer, does not answer additional questions, does not understand the content of the material. During the response and demonstration of practical skills, he makes significant, gross mistakes.

The student's **independent work** is evaluated in practical classes and is a component of the student's final grade.

11. Form of final control of study success

Assessment is a form of final control, which consists in evaluating the student's learning of the educational material based solely on the results of his performance of certain types of work in practical, seminar or laboratory classes. Discipline assessment is carried out after the end of its study, before the beginning of the examination session. Final control is conducted in written form, using the Misa learning platform, according to the schedule. Lasts 2 academic hours. Rating scales traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale

12. Scheme of calculation and distribution of points received by students

The maximum number of points that a student can score for the current educational activity for admission to credit is 200 points.

The minimum number of points that a student must score for the current educational activity in order to be admitted to the credit is 120 points.

The calculation of the number of points is carried out on the basis of the grades received by the student on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places. The obtained value is converted into points on a multi-point scale as follows:

$$x = \frac{CA \times 200}{5}$$

For convenience, a calculation table is given on a 200-point scale:

Recalculation of the average grade for the current activity into a multi-point scale for disciplines ending with credit.

4 Score scale	200 Score scale	4 Score scale	200 Score scale	4 Score scale	200 Score scale	4 Score scale	200 Score scale	4 Score scale	200 Score scale
5	200	4,6	184	4,17	167	3,77	151	3,35	134
4,97	199	4,57	183	4,14	166	3,74	150	3,32	133
4,95	198	4,52	182	4,12	165	3,72	149	3,3	132
4,92	197	4,5	180	4,09	164	3,7	148	3,27	131
4,9	196	4,47	179	4,07	163	3,67	147	3,25	130
4,87	195	4,45	178	4,04	162	3,65	146	3,22	129
4,85	194	4,42	177	4,02	161	3,62	145	3,2	128
4,82	193	4,4	176	3,99	160	3,57	143	3,17	127
7,8	192	4,37	175	3,97	159	3,55	142	3,15	126
4,77	191	4,35	174	3,94	158	3,52	141	3,12	125
4,75	190	4,32	173	3,92	157	3,5	140	3,1	124
4,72	189	4,3	172	3,89	156	3,47	139	3,07	123
4,7	188	4,27	171	3,87	155	3,45	138	3,02	121
4,67	187	4,24	170	3,84	154	3,42	137	3	120
4,65	186	4,22	169	3,82	153	3,4	136	Less than 3	Not enough
4,62	185	4,19	168	3,79	152	3,37	135		

Discipline scores for students who have successfully completed the program are converted into a traditional 4-point scale according to the absolute criteria, which are given in the table below:

Discipline scores	Score on a 4-point scale
From 170 to 200 points	5
From 140 to 169 points	4
From 139 to 120 points	3
Lower 120 points	2

Out of class work of students is evaluated during the ongoing control of the topic in the corresponding session. The learning of topics that are assigned only to independent work is controlled during the final control.

The objectivity of the assessment of students learning activities is checked by statistical methods (correlation coefficient between ECTS assessment and assessment on a national scale).

13. Methodological support

Methodical support of practical classes:

1. Methodical development of practical classes for teachers.
2. Methodical instructions for practical classes for students.
3. Variants of test tasks to check the initial level of knowledge on each topic.
4. Variants of situational tasks to check the mastery of topics.
5. Variants of tasks (theoretical and practical) for final control.
6. Instructions for working with phantoms and dummies to practice practical skills.
7. Video materials, results of laboratory and instrumental methods of examination in various

surgical pathologies in children.

14. Recommended literature

Basic literature

1. Ashcraft's pediatric surgery. Sixth edition / G.W. Holcomb, J. P. Murphy, D. J. Ostlie (Eds.) – Elsevier, 2014. – 1165 p.
2. Ashcraft's Pediatric Surgery / edited by G. W. Holcomb III, J. P. Murphy, associate editor D. J. Ostlie. – 5th ed. – SAUNDERS Elsevier, 2010 – P. 322 – 329, 853 – 996.
3. Lewis Spitz, Arnold Coran Operative Pediatric surgery /CRC Press, 2013. – 1134p.
4. Mario L. Fundamentals of Pediatric Surgery / L. Mario. – Springer, 2017. – 444 p.
5. Mattei P. Fundamentals of Pediatric Surgery / P. Mattei. – Springer, 2017. – 935 p.
6. Operative pediatric surgery. 2nd edition / Edited by M.M. Ziegler, R.G. AziGChan, D. von Allmen, T.R. Weber. – McGraw-Hill Education, 2014. – 1397 p.
7. Operative pediatric surgery. Seventh edition / Edited by L. Spitz and A.G. Coran. – CRC Press, 2013. – 1134 p.
8. Pediatric Surgery. V. 2. Seventh edition / Arnold G. Coran, A. Caldamone, N. Scott Adzick et al. – Elsevier, 2012. – 848 p.
9. Prem Puri, Michael E. Höllwarth, Pediatric surgery / Springer Science & Business Media, 2006. – 634p.
10. S.I. Schwartz and all Principles of Surgery, Companion handbook 7th ed. / Saunders, Philadelphia Pennsylvania, 1998. – 1136p.

Additional literature:

1. Mattei P. Fundamentals of Pediatric Surgery / P. Mattei. – Springer, 2011. – 956 p.
2. Operative pediatric surgery. 2nd edition / Edited by M.M. Ziegler, R.G. AziGChan, D. von Allmen, T.R. Weber. – McGraw-Hill Education, 2014. – 1397 p.
3. Operative pediatric surgery. Seventh edition / Edited by L. Spitz and A.G. Coran. – CRC Press, 2013. – 1134 p.
4. Pediatric Surgery. V. 2. Seventh edition / Arnold G. Coran, A. Caldamone, N. Scott Adzick et al. – Elsevier, 2012. – 848 p.
5. Steven Stylianios, Richard H. Pearl. Abdominal Trauma / in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012, – P. 289-309.
6. Rebecca L. Brown, Richard A. Falcone Jr., Victor F. Garcia. Genitourinary Tract Trauma / in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick [et al.] – 2012, – P. 311–325
7. Richard S. Davidson, B. David Horn. Musculoskeletal Trauma / in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick .[et al.] – 2012. – P.327–336.
8. Peter F. Ehrlich, Robert C. Shamberger. Wilms' Tumor in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012. – P. 423–440.
9. Marshall Z. Schwartz. Hypertrophic Pyloric Stenosis in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012. – P.1021–1028.
10. Paul M. Columbani, Stefan Scholz. Intussusception in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012. – P. 1093–1110.

Information resources

When studying the discipline, through the use of local and global computer networks, students use the following information resources and knowledge bases:

1. Ministry of Health - <http://www.moz.gov.ua/ua/portal/>

2. Wikipedia - <http://uk.wikipedia.org>
3. UpToDate – <http://www.uptodate.com/home>
4. Access Medicine - <http://accessmedicine.mhmedical.com>
5. PubMed - <https://www.ncbi.nlm.nih.gov/pmc/>
6. Medscape eMedicine - https://emedicine.medscape.com/pediatrics_surgery
7. American Pediatric Surgical Association - <https://eapsa.org/>
8. European paediatric surgeon association - <http://www.eupsa.info/>
9. European Society of Paediatric Endoscopic Surgeons - <https://www.espes.eu/>