#### DANYLO HALISTKY LVIV NATIONAL MEDICAL UNIVERSITY

#### Department of Pediatrics # 2

"APPROVED" First Vice-Rector on entific and Pedagogical work Halytsky Lviv National DEAL Medical University Ana SOLONYNKO 2023

#### THE PROGRAM OF THE DISCIPLINE «PEDIATRICS» EB 3.1 Individual profile course: Internal Medicine EB 3.1.3 PAEDIATRICS, CHILDREN'S INFECTIONS 3.1.3.1 - Pediatrics

training of specialists of the second (master's) level of higher education field of knowledge 22 "Healthcare" specialty 222 "Medicine"

Discussed and endorsed at the methodological meeting of the Department of Pediatrics #2 Protocol № 12 of "21" April 2023 Head of the Department of Pediatrics #2 Professor Lesya Besh

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Approved by the Thematic methodological commission on Pediatric disciplines Protocol № 2 of "27" <u>April</u> 2023 Head of the Thematic methodological commission Professor Lesva Besh

2023

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# Introduction Program of discipline "Pediatrics"

The program is made according to the Educational-professional program "Medicine" of the second (master's) level of higher education on a specialty 222 "Medicine"

field of knowledge 22 "Health"

# **Description of academic discipline (abstract)**

Studying the discipline "Pediatrics" students consolidate knowledge gained in the classroom at the department of Propaedeutic Pediatrics and pediatric departments years 4-5. They are mastering basic skills of collecting anamnesis, conducting a physical examination, systemizing the symptoms in syndromes, planning examination of a sick child, interpretation of laboratory and instrumental examinations, carrying out a differential diagnosis most common diseases of the neonatal period and childhood, determination of the preliminary clinical diagnosis, determination of therapeutic tactics, comprehensive treatment with drug dosages administration, emergency medical care not only in typical but also in complex clinical situations. The 6<sup>th</sup> year students are solving complex (atypical) clinical cases, working off practical skills on mannequins and near the bed of a sick child, feeling in the medical records.

# Academic curriculum for discipline "Pediatrics for students of the medical faculties specializing in 222 - Medicine

	Quantity of credits, hours, of which:					
Structure of the educational discipline	Total hours/	Classroom Self-		Educational	Type of control	
	credits	Lecture	Practical	education	year	
Pediatrics Thematic chapters 6	195/6.5	0	100	95	6	credit

# The subject of discipline is:

Differential diagnosis of diseases of bronchopulmonary, cardiovascular, digestive, urinary systems, systemic connective tissue diseases in children of different ages, observation of children in the polyclinic. Emergency conditions, newborn resuscitation. Prevention and treatment of diseases, taking into account the main, concomitant diagnoses and complications, age-related features of drug therapy.

**Interdisciplinary integration:** according to the curriculum, the study of the discipline "Pediatrics" is provided during the 6th academic year (VII-XII semesters), when the student has acquired knowledge of the basic disciplines:

- Medical biology
- Biological physics
- Normal human anatomy and physiology
- Pathological anatomy and physiology
- Histology, cytology and embryology
- Propaedeutic of pediatrics
- Pharmacology
- Microbiology
- Clinical immunology
- Hygiene and Ecology
- Radiology
- Otolaryngology
- Epidemiology
- Virusology

The program of the discipline "Pediatrics" is integrated and continues with these disciplines. As a continuation of Propaedeutic of pediatrics, Pediatrics, together with other clinical disciplines, involves into the future physicians' ability to apply the acquired knowledge in further professional activities.

# **1.0 PURPOSE OF LEARNING THE DISCIPLINE**

1.1 The purpose of teaching the discipline "pediatrics" is development of the ability to use knowledge, skills, abilities and understanding to solve typical and complex tasks of a doctor in the field of children's health, the scope of which is provided by a list of syndromes and symptoms, diseases, emergencies, physiological conditions and diseases, laboratory and instrumental tests, medical manipulations. Differential diagnosis of diseases of bronchopulmonary, cardiovascular, digestive, urinary systems, systemic connective tissue diseases in children of different ages, observation of children in the polyclinic. Emergency care for severe complications, bleeding, resuscitation of newborns. Prevention and treatment of diseases, taking into account the main, concomitant diagnoses and complications, age-related features of drug therapy.

1.2. The main task of studying the discipline of "pediatrics" is that the student must know and be able to study the discipline.

As a result of studying the discipline of "pediatrics" the *student must know*:

- etiological factors of the most common diseases of childhood;
- pathogenesis of the most common diseases of childhood;
- classification of the most common diseases of childhood;
- the main clinical symptoms of the most common diseases of childhood;
- principles of treatment of the most common diseases of childhood.
- As a result of studying the discipline of "pediatrics" the student must be able to:
- take medical history;
- examine a sick child;
- make a preliminary clinical diagnosis;
- plan an examination of a sick child;
- interpret data from laboratory and instrumental tests;

- to conduct a differential diagnosis of the most common diseases of childhood in the case of their typical course;

- prescribe treatment;

1.3. Competences and learning outcomes, the formation of which is facilitated by the discipline in accordance with the requirements of the Standard of Higher Education, the discipline provides students with the acquisition of competencies:

# 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 competencies:**

- GC1 The 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 subject area and understanding of professional activity
- GC5 The ability to adapt and act in a new situation
- GC6 Ability to make an appropriate decision
- GC7 Ability to work in a team
- GC8 Interpersonal skills interaction
- GC9 Ability to communicate in foreign language
- GC10 Skills in using information and communication technologies
- GC11 Ability to search, process and analyze information from various sources
- GC12 Certainty and perseverance on the tasks and responsibilities
- GC13 Awareness of equal opportunities and gender issues
- GC14 The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of

law, human and civil rights

GC15 Ability to retain and develop 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, use various types of physical activities for recreation and a healthy lifestyle

# **Special (professional) competencies:**

- SC1 Ability to collect medical information about the patient and analyze clinical data
- SC2 Ability to determine the required list of laboratory and instrumental studies and assess their results.
- SC3 The ability to establish preliminary and clinical diagnosis
- SC5 Ability to prescribe an appropriate diet in treatment and prevention of diseases
- SC6 Ability to determine the principles and type of treatment and prevention of diseases
- SC7 The ability to diagnose emergency conditions
- SC8 Ability to determine the tactics and implement emergency medical care
- SC10 The skills of performing medical manipulations
- SC11 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
- SC13 Ability to carry out sanitary and hygienic and preventive measures
- SC14 Ability to plan and carry out preventive and anti-epidemic measures for infectious diseases
- SC16 Ability to keep medical records, including electronic forms
- SC21 Clearly and unambiguously to convey own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying
- SC24 Adherence to ethical principles when working with patients
- SC25 Adherence to professional and academic integrity, be responsible for the accuracy of scientific results

Detailing of competencies in accordance with the National Qualification Frame (NQF) descriptors is given in the form of the "Competence Matrix".

	Competence matrix						
№	Competence	Knowledge	Skills	Communication	Autonomy and responsibility		
		In	tegral competence				
The a	bility to solve comple	ex problems, includ	ing those of a researc	ch and innovation na	ture in the field of		
medic	cine. Ability to contin	ue learning with a l	high degree of autono	omy			
		Ge	neral competencies				
1.	Ability to abstract thinking, analysis and synthesis	Know the methods of analysis, synthesis and continued medical education	Be able to analyze information, make informed decisions, be able to master modern knowledge	Establish appropriate connections to achieve goals	To be responsible for the timely acquisition of modern knowledge		
2.	Ability to learn and master modern knowledge	Know the current trends in the field and analyze them	Be able to analyze professional information, make informed decisions, acquire modern knowledge	Establish appropriate connections to achieve goals	Be responsible for the timely acquisition of modern knowledge		
3.	Ability to apply	Have	Be able to solve	Clear and	Responsible for		

# **Competence matrix**

	knowledge in practical situations	specialized conceptual knowledge acquired in the learning process	complex problems and problems that arise in professional activities	unambiguous communication of one's own conclusions, knowledge and explanations that substantiate them to specialists and non-specialists	making decisions in unusual conditions
4.	Knowledge and understanding of the subject area and understanding of professional activity	Have deep knowledge of the structure of professional activity	Be able to carry out professional activities that require updating and integration of knowledge	Ability to effectively form a communication strategy in professional activities	To be responsible for professional development, ability to further professional training with a high level of autonomy
5.	Ability to adapt and act in a new situation	Know the types and methods of adaptation, principles of action in a new situation	To be able to apply means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity	Establish appropriate connections to achieve result	Be responsible, timely use of self- regulation methods
6.	Ability to make an informed decision	Know the tactics and strategies of communication, laws and ways of communicative behavior	Be able to make informed decisions, choose ways and strategies to communicate to ensure effective teamwork	Use communication strategies and interpersonal skills	Be responsible for the choice and tactics of communication
7.	Ability to work in a team	Know the tactics and strategies of communication, laws and ways of communicative behavior	Be able to choose ways and strategies of communication to ensure effective teamwork	Use communication strategies	Be responsible for the choice and tactics of communication
8.	Interpersonal interaction skills	Know the laws and methods of interpersonal interaction	Be able to choose ways and strategies of communication for interpersonal interaction	Use interpersonal skills	Be responsible for the choice and tactics of communication
9.	Ability to communicate in a foreign language	Have a basic knowledge of a foreign language	Be able to communicate in a foreign language.	Use a foreign language in professional activities	To be responsible for the development of professional knowledge with the use of a foreign language
10.	Skills in the use of information and	Have in-depth knowledge in the field of	Be able to use information and communication	Use information and communication	Be responsible for the development of professional

11.	communication technologies Ability to search, process and analyze information from various sources	information and communication technologies used in professional activities Have knowledge about searching and analysis of information from various	technologies in the professional field, which requires updating and integration of knowledge. Be able to search, process and analyze information	technologies in professional activities Use and communicate obtained information and its analysis	knowledge and skills. Be responsible for searching, processing and analysis of information
12.	Certainty and perseverance on the tasks and responsibilities	sources Know the responsibilities and ways to accomplish the tasks	Be able to set goals and objectives to be persistent and conscientious in the performance of duties	Establish interpersonal relationships to effectively perform tasks and responsibilities	Responsible for the quality of the tasks
13.	Awareness of equal opportunities and gender issues	Know about equal opportunities and gender issues	Be able to defines principles of equal opportunities and gender issues	Communicate awareness of equal opportunities and gender issues	Be responsible in implementation of principles of equal opportunities and gender issues
14.	The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights	Know your social and community rights and responsibilities	To form one's civic awareness, to be able to act in accordance with it	Ability to convey one's public and social position	Be responsible for your social position and activities
15.	Ability to retain and develop 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	Know about moral, cultural, scientific values and achievements of society the basics of ethics and deontology	Be able to develop moral, cultural, scientific values and achievements of society	Ability to convey moral, cultural, scientific values and achievements of society	Be responsible for implementation of moral, cultural, scientific values and achievements of society

	and in the				
	development of				
	society,				
	technology, use				
	various types of				
	physical activities				
	for recreation and				
	a healthy lifestyle				
			ssional, subject) con		
1.	Ability to collect	Have	Be able to	Effectively	Be responsible for
	medical	specialized	conduct a	develop a	the quality
	information about	knowledge	conversation with	communication	collection of
	the patient and	about the child,	the child and / or	strategy when	information
	analyze clinical	organs and	her parents	communicating	obtained through
	data	systems,	(guardians), based	with the patient	interviews,
		anatomical and	on algorithms and	and / or his	surveys,
		physiological	standards. Use the	parents	examinations,
		features of	principles of	(guardians).	palpation,
		children of	communication	Include	percussion of
		different ages,	with parents of	information about	organs and systems
		know the	children with	the child's health	and for timely
		methods and	incurable	or fetal	assessment of the
		standard	diseases. Using	development in	child's health,
		schemes of	standard	the relevant	psychomotor and
		interviewing,	techniques to	medical records	physical
		taking	conduct a		development of the
		genealogical	physical		child and fetal
		information,	examination of		development and
		pedigree,	the patient. Be		for taking
		physical	able to examine		appropriate
		examination of	the psychomotor		measures
		patients of	and physical		
		different ages.	development of		
		Know the	the child.		
		methods of	Be able to assess		
		assessing of	the quality of		
		intrauterine fetal	care,		
		development.	breastfeeding and		
		Know the stages	child nutrition. Be		
		and methods of	able to conduct a		
		examination of			
			comprehensive assessment of the		
		psychomotor			
		and physical	child's health		
		development of			
2		the child	D1.1 ( 1	T	Demon 111 C
2.	Ability to	Have	Be able to analyze	To make and	Be responsible for
	determine the	specialized	the results of	communicate to	deciding on the
	required list of	knowledge	laboratory and	the patient and /	evaluation of
	laboratory and	about the child,	instrumental	or his/her parents	laboratory and
	instrumental	peculiarities of	studies and on	(guardians),	instrumental tests
	studies and assess	organs and	their basis to	specialists	
	their results	systems,	evaluate	conclusions on	
		standard	information about	necessary	
		methods of	the patient's	laboratory and	

		laboratory and instrumental evaluation	diagnosis	instrumental tests	
3.	The ability to establish preliminary and clinical diagnosis	Have specialized knowledge about the child, organs and systems; standard examination methods; disease diagnosis algorithms; algorithms for discrimination of leading symptoms or syndromes; preliminary and final diagnoses; methods of laboratory and instrumental examination; knowledge of assessing the child's condition	Be able to perform a physical examination of the patient; be able to make an informed decision about the selection of the leading clinical symptom or syndrome; be able to make a preliminary and clinical diagnosis); to order laboratory and instrumental tests	On the basis of normative documents to keep medical documentation of the patient (outpatient / inpatient records).	Adhering to ethical and legal norms, be responsible for making informed decisions and actions regarding the correctness of the established preliminary and clinical diagnosis
5.	Ability to prescribe an appropriate diet in treatment and prevention of diseases	Have specialized knowledge about the child, organs and systems, anatomical, physiological age-dependent characteristics; algorithms and standard schemes of nutrition for healthy children and during the treatment of diseases	Be able to determine the type of nutrition of healthy children and on the basis of preliminary and final diagnoses, the type of nutrition in the treatment of diseases	Make and communicate to the patient and / or his parents (guardians), specialists conclusions on the nutrition of healthy children and in the treatment of diseases	Be responsible for the correct choice of nutrition for healthy and sick children
6.	Ability to determine the principles and type of treatment and prevention of diseases	Have specialized knowledge of algorithms and standard protocols for the treatment of	Be able to make plan and particular treatment of the disease	Draw conclusions about treatment and inform the patient and / or his parents (guardians)	Be responsible for decisions regarding the treatment of the disease

		diseases			
7.	The ability to diagnose emergency conditions	Have a specialized knowledge about the child, his organs and systems, standard methods of pediatric examination (at home, on the street, in a health care facility) in the absence of information	Be able, in the absence of information, using standard techniques, by making an informed decision to assess the child`s condition and determine the main clinical syndrome (or what causes the severity of the emergency)	Under any circumstances, adhering to the relevant ethical and legal issues to make an informed decision to assess the severity of the child's condition, diagnosis and organization of management depending on the child's condition; fill in the relevant medical records	Be responsible for the timeliness and effectiveness of medical measures to diagnose emergencies
8.	Ability to determine the tactics and implement emergency medical care	Know the legal framework for the provision of emergency medical care. Have specialized knowledge about urgent pediatric care.	Be able to identify emergencies; principles and tactics of emergency medical care; to carry out organizational and diagnostic measures aimed at saving child`s life.	Reasonable formulate and communicate to the patient or his / her legal representative the need for emergency care and obtain consent for medical intervention	Be responsible for the correct diagnosis of the emergency condition, severity and tactics of emergency medical care
10.	Skills to perform medical manipulations	Have specialized knowledge on pediatric anatomy and physiology; algorithms for Provision medical manipulation	Be able to perform medical manipulations	Reasonable formulate and communicate to the patient or his / her legal representative the need for medical manipulations and obtain consent for medical manipulations	Be responsible for the quality of 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	Know how to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information	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	Communicate methods of solving of medical problems in new or unfamiliar environments in the presence of incomplete or limited information	Be responsible for solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information

13.	Ability to carry	To know the	Be able to form	Based on the	To be responsible
15.	out sanitary and	system of	groups of children	results of medical	for the timely and
	hygienic and	hygienic and	for their medical	supervision and	high-quality
	preventive	preventive	follow-up.	analysis of	implementation of
	measures	measures among	Be able to make a	children's health,	measures to assess
		in the	plan for medical	the state of	the health of
		community.	follow-up of	industry and the	children,
		To know the	different groups.	environment to	rehabilitation and
		principles of	Have the skills to	know the	improvement of the
		organization of	organize medical	principles of	health of certain
		medical follow-	follow-ups of	submitting	contingents,
		up of different	relevant	analytical	improving the
		age groups	contingents.	information to	environment,
		subject to	Have the skills to	local government	promoting a
		dispensary	analyze the health	and health; heads	healthy lifestyle,
		supervision	status of groups	of industrial	primary prevention
		(newborns,	of the population	enterprises to take	of disease and
		children,	based on the	measures to	injury
		teenagers) and	results of medical follow-ups and	eliminate harmful effects on	
		specific groups of patients;	1	children's health.	
		Know the	the development of medical and	Use the local	
		indicators of	preventive	press to publish	
		evaluation of the	measures.	health and	
		organization and	Have the skills to	environmental	
		effectiveness of	compile an	promotion	
		medical care.	analytical report	activities, use	
		Know the	on the health of	radio, television,	
		methodological	children	lectures and	
		approaches to	depending on the	interviews	
		assess the state of	environment.		
		the environment	Be able to		
		and the presence	organize the		
		of factors that	promotion of a		
		affect the health	healthy lifestyle,		
		of the population	primary		
		in the	prevention of		
		environment. Know the	diseases and		
		principles of	injuries		
		nutrition, water			
		supply, mode of			
		activity and			
		recreation, the			
		formation of a			
		favorable			
		working			
		environment,			
		primary			
		prevention of			
		disease and			
		injury; principles			
		and methods of			
		promoting a			

		healthy lifestyle			
14.	Ability to plan and carry out preventive and anti-epidemic measures regarding infectious diseases	To know the system of hygienic and preventive measures among the established contingent of the population	Have the skills to analyze the state of health of population groups and develop medical and preventive measures	Clearly and unambiguously to convey own knowledge about the need for preventive and anti-epidemic measures to specialists and non-specialists	Be responsible for the timely and high-quality implementation of preventive and anti-epidemic measures
16.	Ability to keep medical records, including electronic forms	Know the system of official document management in the work of a doctor, including modern computer information technology	Be able to determine the source and location of the required information depending on its type;	Obtain the necessary information from a specific source and on the basis of its analysis to form appropriate conclusions	Be responsible for the completeness and quality of the analysis of information and conclusions based on its analysis
21.	Clearly and unambiguously convey own knowledge, conclusions and arguments on health care and related issues to specialists and non-specialists, in particular to people who are studying	Critically consider problems in the field and on the border of the fields of knowledge	Ability to solve problems in new and unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethnic responsibility	Use foreign languages in professional activities	Be responsible for contributing to professional knowledge and practice and/or evaluating outcomes
24.	Adherence to ethical principles when working with patients	To know the basic ethical and deontological principles necessary in professional activity	To be able to apply basic ethical considerations (motives) during the performance of professional duties	To comply with the requirements of ethics, bioethics and deontology in their professional activities	To be responsible for compliance with the requirements of ethics, bioethics and deontology in one's professional activity
25.	Adherence to professional and academic integrity, be responsible for the accuracy of scientific results	To know the basic ethical and deontological principles necessary in professional activity	Be able to implement professional, academic, and scientific integrity	Share information on professional, academic, and scientific integrity	Be responsible of professional and academic integrity, the accuracy of scientific results

# Program learning results (PLR)

PLR 1. Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy.

PLR 2. Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care.

PLR 3. Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for research, critical understanding of problems in the field of medicine and related interdisciplinary problems.

PLR 4. Identify and identify the leading clinical symptoms and syndromes; according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease.

PLR 5. Collect complaints, life history and disease, assess the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies to assess information about the diagnosis, taking into account the patient's age.

PLR 6. Establish a final clinical diagnosis by making an informed decision and analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis, adhering to the relevant ethical and legal norms, under the supervision of a physician-manager in a health care institution.

PLR 7. Order and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) for differential diagnosis of diseases.

PLR 9. To determine the nature and principles of treatment of patients (conservative, operative), taking into account the age of the patient, in a health care facility, outside it and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision on existing algorithms and standard schemes. If necessary to expand the standard scheme and justify personalized recommendations under the supervision of a physician.

PLR 10. To determine the necessary mode of work, rest and nutrition based on the final clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

PLR 12. Assess the general condition of the newborn child by making an informed decision according to existing algorithms and standard schemes, adhering to the relevant ethical and legal norms.

PLR 13. Assess and monitor the child's development, provide recommendations for breastfeeding and nutrition depending on age, organize preventive vaccinations on the calendar.

PLR 14. Define tactics and provide emergency medical care in emergencies for a limited time in accordance with existing clinical protocols and treatment standards.

PLR 17. Perform medical manipulations in a medical institution, at home or at work based on a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision, adhering to the relevant ethical and legal norms.

PLR 18. Evaluate the state of functioning and restrictions of life of the person and the duration of disability with the registration of relevant documents at health care institution on the basis of data on illness and its course, features of human professional activity, etc. Keep a medical document on the patient and a certain contingent of the population on the basis of regulatory documents.

PLR 20. Analyze the epidemiological condition and take measures of mass and individual, general and local prevention of infectious diseases.

PLR 21. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.

PLR 24. Organize the necessary level of individual safety (own and care persons) in the event of typical dangerous situations in the individual field of activity.

PLR 25. Clearly and unambiguously communicate knowledge, conclusions and arguments on health issues and related issues to professionals and non-specialists.

PLR 29. Plan, organize and conduct activities for the specific prevention of infectious diseases, including in accordance with the National Calendar of preventive vaccinations, both mandatory and recommended. Manage vaccine residues; organize additional vaccination campaigns, including immune-prophylaxis measures.

#### Learning outcomes for Discipline:

- To assess information on the diagnosis at the conditions of health care, its unit, using knowledge of the laws of development and the occurrence of diseases in children, based on the results of examination of the patient and results of laboratory and instrumental investigations.

- To make differential diagnosis of disease.

- Prescribe treatment.

- To determine the prognosis of the disease.

### 2. Information volume of academic discipline

6.5 Credits ECTS 195 hours are allocated for studying a discipline.

# Thematic chapter 1.

Differential diagnosis of the most common respiratory tract diseases in childhood. Emergency care in common emergency conditions.

# Topic 1. Differential diagnosis of pneumonia in children. Acute respiratory disease COVID-19 in children. Current aspects of treatment

Leading clinical symptoms and syndromes in different clinical variants of pneumonia in children. Results of laboratory and instrumental studies in different clinical variants of pneumonia. Differential diagnosis of pneumonia, bronchitis, and bronchiolitis in children. Making a preliminary diagnosis. Treatment of patients with different clinical variants of pneumonia. Prevention of pneumonia and its complications in children. Clinical presentation and course of COVID-19. Updated diagnosis and management protocol. Prophylaxis

# Topic 2. Complications of pneumonia. Emergency care in acute respiratory failure in children.

Differential diagnoses in pleurisy, abscess, pyothorax, and pneumothorax. Clinical presentation and laboratory evaluation. Radiologic differences pleurisy, abscess, pyothorax, and pneumothorax. Assessment of acute respiratory failure in children. Severity staging. Blood gases and base-acid balance. Types and techniques of oxygen therapy. Indications in advanced respiratory support.

#### Topic 3. Differential diagnosis of pulmonary diseases in newborns.

Diagnostic approach for lung pathology in newborns. Assessment of the type and severity of respiratory disorders. Differential diagnosis. The main complications. Contemporary approaches to treatment.

# Topic 4. Differential diagnosis of bronchial obstruction in childhood. Differential approach to the treatment of bronchial obstruction in children.

Leading clinical symptoms and syndromes in bronchial asthma, bronchiolitis and acute obstructive bronchitis in children. Peculiarities of asthma in children, depending on the severity and level of control. Results of laboratory and instrumental studies in bronchial asthma, bronchiolitis and acute obstructive bronchitis and its complications. Differential diagnosis of asthma and bronchial obstruction versus acute respiratory infections in children of all ages. Making the preliminary diagnosis. Treatment of patients with different clinical variants of obstructive syndrome and its complications in children. Provision emergency assistance in an asthma attack and status asthmaticus. Prevention of asthma and bronchial obstruction syndrome against acute respiratory infections in children of all ages.

# Topic 5. Differential diagnosis of hereditary, congenital, and chronic broncho-pulmonary disease in children.

Leading clinical symptoms and syndromes in chronic bronchitis, bronchiectasis, hereditary and congenital diseases of respiratory system (cystic fibrosis, idiopathic pulmonary hemosiderosis, primary cilia dyskinesia, a syndrome of Wilms Campbell bronchomalacia, aplasia and hypoplasia of the lungs,  $\alpha$ 1-antitrypsin deficiency, bronchopulmonary dysplasia, sequestration lung) in children. The results of laboratory and instrumental studies in chronic bronchitis, bronchiectasis, hereditary and congenital diseases of the respiratory system and their complications. Differential diagnosis of chronic, hereditary, and congenital bronchopulmonary disease in children. Clinical management of patients with hereditary, congenital, and chronic bronchopulmonary diseases in children. Prevention of hereditary, congenital, and chronic bronchopulmonary diseases in children.

# **Topic 6. Current aspects in antibiotic therapy in children.**

Therapeutic range of antibiotic therapy. Types of antibacterial drugs. Types of antibiotic action modes. Pharmacokinetics, pharmacodynamics. Age-specific indications and contraindications and concomitant pathology.

# Thematic chapter 2.

Differential diagnosis of the most common disease of the blood circulatory system in children, systemic inflammatory connective tissue disease in children. Emergency care in common emergency conditions.

# Topic 7. Differential diagnosis of inflammatory and non-inflammatory heart disease in children. Treatment of chronic heart failure.

Leading clinical symptoms and syndromes of heart disease in children. Clinical variants and complications of myocarditis, endocarditis, pericarditis, cardiomyopathies, congenital and acquired heart defects in children. Data from laboratory and instrumental tests in myocarditis, endocarditis, pericarditis, cardiomyopathies, congenital and acquired heart defects in children. Clinical manifestations of heart failure in children of different ages. Differential diagnosis of inflammatory and non-inflammatory diseases of the circulatory system in children. Tactics of patient management in myocarditis, endocarditis, pericarditis, cardiomyopathies, cardiomyopathies, congenital and acquired heart defects in children. Treatment and prevention of chronic heart failure.

# Topic 8. Pericarditis in children. Medicines used in pediatric cardiology.

Differential diagnosis of pericarditis. Interdisciplinary approach to diagnosis, and follow-up.

# Topic 9. Critical congenital heart defects - diagnosis and management of patients.

Erly prenatal and early postnatal diagnosis of critical heart defects. Management and prognosis.

# Topic 10. Differential diagnosis of abnormal cardiac rhythm and conduction in children. Emergency care in paroxysmal rhythm disturbances and Morgan-Adam Stokes syndrome.

Leading clinical symptoms and syndromes in extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Clinical variants of the course of paroxysmal tachycardia and fibrillation in children. The results of instrumental studies at extrasystole, paroxysmal tachycardia, atrial fibrillation, complete atrioventricular block. Differential diagnosis of arrhythmia, paroxysmal tachycardia, atrial fibrillation and complete atrio-ventricular block. Clinical management of patients with arrhythmia, paroxysmal tachycardia, atrial fibrillation, complete atrio-ventricular block in children. Provision emergency care for paroxysmal tachycardia, atrial fibrillation, Morgan-Adams-Stokes syndrome, in children. Prevention of cardiac rhythm and conduction abnormality in children.

**Topic 11. Differential diagnosis of systemic connective tissue disease and systemic vasculitis in children.** Leading clinical symptoms and syndromes in juvenile rheumatoid arthritis, systemic lupus erythematosus, acute rheumatic fever, dermatomyositis, scleroderma, Kawasaki disease, polyarteritis nodosa and other systemic vasculitis in children. Clinical variants of the course and complications of systemic connective tissue diseases and systemic vasculitis in children. The results of laboratory and instrumental studies in systemic connective tissue diseases and systemic vasculitis in children. Differential diagnosis of arthritis in children. Differential diagnosis of systemic connective tissue diseases and systemic vasculitis in children. Differential diagnosis of arthritis in children. Clinical management of patients with systemic connective tissue diseases and systemic vasculitis in children. Primary and secondary prevention of acute rheumatic fever in children.

# Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment.

Differential diagnosis of the disease and Kawasaki syndrome. Diagnostic approach, treatment, prognosis.

Topic 13. Differential diagnosis of arterial hypertension in children.

Evaluation of a pediatric patient with arterial hypertension. Correct measurement of blood pressure. Automated pressure blood pressure monitoring. Use of age and height distribution (percentile) tables for grading arterial pressure by the severity. Differential diagnosis in arterial hypertension. Evaluation of the target organs damage in arterial hypertension. Types of anti-hypertensive drugs. Treatment of hypertensive crisis in a pediatric patient. Emergency care.

# Topic 14. Metabolic syndrome – diagnosis and management.

Differential diagnosis of metabolic syndrome in children. Making clinical diagnosis. Management of metabolic syndrome. Prevention.

# Thematic chapter 3.

# Differential diagnosis of the most common disease of the digestive tract in children. Emergency care for common emergency conditions.

### Topic 15. Differential diagnosis of functional and organic disease of stomach and duodenum in children.

Leading clinical symptoms and syndromes in the functional and organic diseases of the stomach and duodenum in children (functional dyspepsia, reflux disease, gastritis, gastric ulcer and duodenal ulcer). Clinical - instrumental investigations and Differential diagnosis of dyspeptic and abdominal pain syndromes in children. Clinical variants of the course of gastric ulcer and duodenal ulcer disease. Clinical management of children with functional and organic diseases of the stomach and duodenum. Diagnosis of a complicated course of gastric ulcer in children, tactics of the general practitioner, emergency aid. Prevention of functional and organic diseases of the stomach and duodenum in children.

### Topic 16. Differential diagnosis of functional and organic diseases of intestines in children.

Leading clinical symptoms and syndromes in the functional and organic diseases of the intestines in children (functional constipation, reflux disease, irritable bowel syndrome, disaccharidase deficiency, exudative enteropathy, celiac disease, cystic fibrosis, Crohn's disease, ulcerative colitis). Clinical - instrumental investigations and differential diagnosis of dyspeptic, abdominal pain, and intestinal absorption syndrome disorders in children. Clinical variants of diseases of intestines. Clinical management of children with functional and organic diseases of the intestines. Prevention of functional and organic diseases of the intestines in children.

#### **Topic 17. Helminthiasis in children.**

The state of the art in helminthiasis in children. Prevalence, polymorphism of clinical manifestations. Modern opportunities for diagnosis. Management.

### Topic 18. Differential diagnosis of malabsorption syndrome in children.

Malabsorption syndrome, clinical manifestations, causes. Current approaches to the diagnosis of malabsorption syndrome, treatment. Multidisciplinary approach.

# Topic 19. Differential diagnosis of the hepatic, biliary system, and pancreas in children. Syndrome of portal hypertension. Emergency care for acute liver failure.

Leading clinical symptoms and syndromes in biliary dyskinesia, acute and chronic cholecystitis, acute and chronic pancreatitis, and chronic hepatitis in children. Clinical variants of the course of biliary dyskinesia, acute and chronic cholecystitis, acute and chronic pancreatitis, and chronic hepatitis in children. The results of laboratory and instrumental studies in biliary dyskinesia, acute and chronic cholecystitis, acute and chronic pancreatitis, and chronic hepatitis in children. Differential diagnosis of biliary dyskinesia, acute and chronic cholecystitis, acute and chronic pancreatitis, acute and chronic pancreatitis in children. Differential diagnosis of biliary dyskinesia, acute and chronic cholecystitis, acute and chronic pancreatitis, acute and chronic pancreatitis, and chronic hepatitis in children. Clinical management of patients with biliary dyskinesia, acute and chronic cholecystitis, acute and chronic hepatitis in children. Provision emergency care in acute hepatic failure and complications of portal hypertension syndrome. Prevention of biliary dyskinesia, acute and chronic cholecystitis, acute and chronic pancreatitis, and chronic pancreatitis, and chronic cholecystitis, acute and chronic pancreatitis, and chronic hepatitis in children.

#### Topic 20. Differential diagnosis of jaundice in children.

Diagnostic approach to jaundice in children of different age groups. Interdisciplinary approach. Interpretation of the results of laboratory and instrumental examinations. Management.

#### Topic 21. Food and drug allergy in children.

Leading clinical symptoms of food and drug allergies in children. Diagnostic algorithm: laboratory and instrumental methods of examination, consultations. Clinical management of children with food and drug allergies. Provision emergency care for hives, anaphylactic shock.

**Topic 22. Induction of oral tolerance in children of different age groups (prevention of food allergies).** Induction of oral tolerance is a new and promising therapeutic approach in the treatment of persistent allergy.

# Thematic chapter 4.

Differential diagnosis of the most common diseases of the urinary tract in children. Emergency care in common emergency conditions.

# Topic 23. Differential diagnosis of infectious and inflammatory disease of the urinary system in children. Differential diagnosis of hereditary disease of the urinary system in children.

Leading clinical symptoms and syndromes in inflammatory diseases of the urinary system (urinary system infections, urethritis, cystitis, pyelonephritis) dysmetabolic nephropathy, hereditary tubulopathy (phosphate diabetes, Syndrome Debre-de Toni-Fanconi, renal diabetes insipidus, renal tubular acidosis) and interstitial nephritis in children. Clinical variants of the course and complications of infectious diseases of the urinary system, interstitial nephritis, nephropathy and hereditary dysmetabolic tubulopathy in children. The results of the laboratory and instrumental studies at the most common inflammatory diseases of the urinary system, interstitial nephritis, dysmetabolic nephropathy and hereditary tubulopathy in children. Differential diagnosis of the most common infectious diseases of the urinary system, interstitial nephritis, nephropathy in children. Clinical management of the sick child in the most common inflammatory diseases of the urinary system and their complications, with interstitial nephritis, with dysmetabolic nephropathy and hereditary tubulopathy in children. First aid in acute urinary retention. Preventing urethritis, cystitis, pyelonephritis.

**Topic 24. Differential diagnosis of glomerulonephritis in children. Differential approach to treatment of glomerulonephritis in children. Acute and chronic kidney failure. Treatment tactics and emergency care.** Clinical and morphological variants of primary glomerulonephritis in children. Differential diagnosis of acute post-streptococcal glomerulonephritis with hereditary Alport nephritis, rapidly progressive glomerulonephritis, Berger's disease. Nephrotic syndrome in children: Differential diagnosis, complications. Clinical variants of chronic glomerulonephritis in children. Indications for renal biopsy in children. Clinical management of the sick child in acute and chronic glomerulonephritis. Tactics in treatment of acute and chronic glomerulonephritis. Prevention of chronic kidney disease. Acute kidney injury (acute renal failure) in children: etiology, pathogenesis, clinical and laboratory symptoms, Differential diagnosis. Emergency tactics of sick children. Chronic renal failure. Treatment approach. Prevention of progression of chronic renal failure.

**Topic 25. Anomalies of the urinary system accompanied by pathologic urodynamics in children.** Anomalies of development of the urinary system, which lead to impaired urodynamics and cause urinary retention. Complications, timely diagnosis and management.

Topic 26. Diseases accompanied by hematuria in children. Renal replacement therapy.

Differential diagnosis of hematuria in children. Diagnostic approach. Management.

# Thematic chapter 5.

Dispensary supervision of healthy and sick children at the polyclinic.

# Topic 27. Differential diagnosis of lymphoproliferative syndrome in children.

Laboratory evaluation in lymphadenopathy, splenomegaly. Gastrointestinal presentation and involvement of mediastinum. Immune deficiency syndromes as a background of lymphoproliferative syndrome in children. X-linked lymphoproliferative disorders, autoimmune lymphoproliferative syndrome, primary immune deficiencies, posttransplant lymphoproliferative disorder. Differential diagnosis in pediatric non-Hodgkin lymphoma.

# Topic 28. Medical supervision of children in the first three years of life in the polyclinic setting. Integrated management of childhood illnesses.

Procedure for obligatory preventive examinations of children under three years old. Efficient feeding and nutrition of the child under three years old. Evaluation of physical and psycho-motor development of children up to three years. Tactics of the general practitioner in violation of physical and neuropsychological development of children during the first three years of life. Principles of effective counseling. Differential diagnosis and prevention of the most common deficient states (rickets, iron deficiency) in infants. Prophylactic vaccination of children up to three years. The strategy of integrated management of childhood illness and its purpose. Common signs of danger for the child. Evaluation, classification, treatment, consultation and follow-up for coughing, difficulty in breathing, diarrhea, problems with the ear, sore throat, fever, malnutrition and anemia, the presence of HIV infection in children under the age of 2 months with jaundice, diarrhea, feeding problems and low birth weight, very severe illnesses, and local bacterial infection.

# Topic 29. Differential diagnosis of the most common hematological diseases in children.

Leading clinical symptoms and syndromes of hematological diseases (anemia, thrombocytopenia and thrombocytopathy, coagulopathy). Data from laboratory and instrumental studies. Clinical variants of course and complications. Management.

# Topic 30. Nutrition of children of the first 3 years of life: intake of vitamins and macro- and micronutrients with food.

Rational feeding and nutrition of a child under three years of life. Leading clinical symptoms and syndromes in insufficiencies of vitamins and trace elements. Diagnosis and principles of correction.

# Topic 31. Resuscitation of a newborn.

Indications for resuscitation. Basic principles of resuscitation. Initial and subsequent steps of resuscitation. Topic 32. Asphyxia of newborns and perinatal CNS lesions: prevention, differential diagnosis and principles of treatment.

Differential diagnosis of asphyxia and perinatal CNS lesions in newborns. Diagnostic algorithm. Management.

# 3. STRUCTURE OF THE EDUCATIONAL DISIPLINE PEDIATRICS

Topic	Lectures	Workshops	Independent work of Student
Thematic chapter 1. Differential diagnosis of the most common resp	piratory tra	ct diseases in	childhood.
Emergency care in common emergency conditions.			
Topic 1. Differential diagnosis of pneumonia in children. Acute		6	3
respiratory disease COVID-19 in children. Current aspects of			
treatment			
Topic 2. Complications of pneumonia. Emergency care in acute respiratory failure in children.		6	3
Topic 3. Differential diagnosis of pulmonary diseases in newborns.			3
Topic 4. Differential diagnosis of bronchial obstruction in children.		6	3
Differential approach to treatment of bronchial obstruction in children.			
Topic 5. Differential diagnosis of hereditary, congenital, and chronic		5	3
disease of the bronchopulmonary system in children.			
Topic 6. Current aspects in antibiotic therapy in children.			3
Thematic chapter 2. Differential diagnosis of the most common dise	ease of the b	lood circulat	tory system
in children, systemic inflammatory connective tissue disease in child	dren. Emer	gency care in	common
emergency conditions.			
Topic 7. Differential diagnosis of inflammatory and non-inflammatory		6	3
heart disease in children. Treatment of chronic heart failure.			
Topic 8. Pericarditis in children. Medicines used in pediatric			3
cardiology.			
Topic 9. Critical congenital heart defects - diagnosis and management			3
of patients.			
Topic 10. Differential diagnosis of abnormal cardiac rhythm and		6	3
conduction in children. Emergency care in paroxysmal rhythm			
disturbances and Morgan-Adam Stokes syndrome.			
Tonio 11 Differential diagnosis of systemic connective tissue diagona			
Topic 11. Differential diagnosis of systemic connective tissue disease		6	3
and systemic vasculitis in children.		6	
and systemic vasculitis in children. Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis		6	3
and systemic vasculitis in children. Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment.			3
and systemic vasculitis in children. Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment. Topic 13. Differential diagnosis of arterial hypertension in children.		6 6	3
<ul> <li>and systemic vasculitis in children.</li> <li>Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment.</li> <li>Topic 13. Differential diagnosis of arterial hypertension in children.</li> <li>Topic 14. Metabolic syndrome – diagnosis and management.</li> </ul>		6	3 3 3 3
<ul> <li>and systemic vasculitis in children.</li> <li>Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment.</li> <li>Topic 13. Differential diagnosis of arterial hypertension in children.</li> <li>Topic 14. Metabolic syndrome – diagnosis and management.</li> <li>Thematic chapter 3. Differential diagnosis of the most common</li> </ul>	n disease o	6	3 3 3 3
<ul> <li>and systemic vasculitis in children.</li> <li>Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment.</li> <li>Topic 13. Differential diagnosis of arterial hypertension in children.</li> <li>Topic 14. Metabolic syndrome – diagnosis and management.</li> <li>Thematic chapter 3. Differential diagnosis of the most common children. Emergency care in common emergency conditions.</li> </ul>	n disease o	6 f the digest	3 3 3 ive tract in
<ul> <li>and systemic vasculitis in children.</li> <li>Topic 12. Kawasaki disease in children: causes, symptoms, diagnosis and treatment.</li> <li>Topic 13. Differential diagnosis of arterial hypertension in children.</li> <li>Topic 14. Metabolic syndrome – diagnosis and management.</li> <li>Thematic chapter 3. Differential diagnosis of the most common</li> </ul>	n disease o	6	3 3 3 3

Topic 16. Differential diagnosis of functional and organic disease of	6	3
intestines in children.		-
Topic 17. Helminthiasis in children.		3
Topic 18. Differential diagnosis of malabsorption syndrome in		3
children.		
Topic 19. Differential diagnosis of disease of the hepatic, biliary	6	3
system and the pancreas in children. Syndrome of portal hypertension.		
Emergency care in acute hepatic failure.		
Topic 20. Differential diagnosis of jaundice in children.		3
Topic 21. Food and drug allergy in children		3
Topic 22. Induction of oral tolerance in children of different age	6	3
groups (prevention of food allergies).		
Thematic chapter 4. Differential diagnosis of the most common diseases of	the urinary tract	in
children. Emergency care in common emergency conditions.	v	
Topic 23. Differential diagnosis of infectious inflammatory disease of	6	3
the urinary system in children. Differential diagnosis of hereditary		
disease of the urinary system in children.		
Topic 24. Differential diagnosis of glomerulonephritis in children.	6	3
Differential approach to treatment of glomerulonephritis in children.		
Acute and chronic kidney failure. Treatment and emergency care.		
Topic 25. Anomalies of the urinary system accompanied by pathologic		3
urodynamics in children.		
Topic 26. Diseases accompanied by hematuria in children. Renal		3
replacement therapy. Differential diagnosis of hematuria in children.		
Diagnostic approach. Management.		
Thematic chapter 5. Dispensary supervision of healthy and sick children in	n the polyclinic.	
Topic 27. Differential diagnosis of lymphoproliferative syndrome in	5	3
children.		
Topic 28. Medical supervision of children in the first three years of life	6	3
in the polyclinic setting. Integrated management of childhood		
illnesses.		
Topic 29. Differential diagnosis of the most common hematological		3
diseases in children.		
Topic 30. Nutrition of children of the first 3 years of life: intake of		3
vitamins and macro- and micronutrients with food.		
Topic 31. Resuscitation of a newborn.	6	3
Topic 32. Asphyxia of newborns and perinatal CNS lesions:		2
prevention, differential diagnosis and principles of treatment.		
Final control	Credit	
Total: credits in ECTS – 6.5; hours – 195;	100	95

**4. The thematic plan of lectures -** the curriculum of lectures is not provided (Order No. 1053 -S of 24.03.2023).

# 5. Thematic plan of workshops

N⁰	Торіс	Hours
1.	Differential diagnosis of pneumonia in children. Acute respiratory disease COVID-19 in	6
	children. Current aspects of treatment	
2.	Complications of pneumonia. Emergency care in acute respiratory failure in children.	6
3.	Differential diagnosis of bronchial obstruction in children. Differential approach to	6
	treatment of bronchial obstruction in children.	
4.	Differential diagnosis of hereditary, congenital, and chronic disease of the	5

	bronchopulmonary system in children.			
5.	Differential diagnosis of inflammatory and non-inflammatory heart disease in children.	6		
	Treatment of chronic heart failure.			
6.	Differential diagnosis of abnormal cardiac rhythm and conduction in children. Emergency	6		
	care in paroxysmal rhythm disturbances and Morgan-Adam Stokes syndrome.			
7.	Differential diagnosis of systemic connective tissue disease and systemic vasculitis in	6		
	children.			
8.	Differential diagnosis of arterial hypertension in children. Metabolic syndrome	6		
9.	Differential diagnosis of functional and organic disease of the stomach and duodenum in	6		
	children.			
10.	Differential diagnosis of functional and organic disease of intestines in children.	6		
11.	Differential diagnosis of disease of the hepatic, biliary system, and the pancreas in children.	6		
	Syndrome of portal hypertension. Emergency care in acute hepatic failure.			
12.	Food and drug allergy in children	6		
13.	Differential diagnosis of infectious inflammatory disease of the urinary system in children.	6		
	Differential diagnosis of hereditary disease of the urinary system in children.			
14.	Differential diagnosis of glomerulonephritis in children. Differential approach to treatment	6		
	of glomerulonephritis in children. Acute and chronic kidney failure. Treatment tactics and			
	emergency care.			
15.	Differential diagnosis of lymphoproliferative syndrome in children.	5		
16.	Medical supervision of children in the first three years of life in the polyclinic setting.	6		
	Integrated management of childhood illnesses.			
17.	Resuscitation of a newborn	6		
Total hours				

**Independent work of a student** - one of organizational forms of learning, regulated by the working curriculum and performed by the student independently outside the classroom. Possible types of independent work (self-work): preparation for workshops and study topics listed in self-learning schedule and study of additional literature, algorithms, structure, logic, writing cases, synopses, literature reviews. Organization of independent work in pediatric hospital departments must be ensured by teachers.

# 6. THEMATIC PLAN OF INDEPENDENT WORK

	Торіс	Hours	Type of assessment
1.	Differential diagnosis of pulmonary diseases in newborns.	3	On-going
2.	Current aspects in antibiotic therapy in children.	3	assessment
3.	Critical congenital heart defects - diagnosis and management of	3	during
	patients.		workshops
4.	Pericarditis in children. Medicines used in pediatric cardiology.	3	
5.	Kawasaki disease in children: causes, symptoms, diagnosis and	3	
	treatment.		
6.	Metabolic syndrome – diagnosis and management.	3	
7.	Helminthiasis in children.	3	
8.	Differential diagnosis of malabsorption syndrome in children.	3	
9.	Differential diagnosis of jaundice in children.	3	
10.	Induction of oral tolerance in children of different age groups	3	
	(prevention of food allergies).		
11.	Anomalies of the urinary system accompanied by pathologic	3	
	urodynamics in children.		
12.	Diseases accompanied by hematuria in children. Renal replacement	3	
	therapy.		
13.	Differential diagnosis of the most common hematological diseases in	3	
	children.		

14.	Nutrition of children of the first 3 years of life: intake of vitamins and	3	
	macro- and micronutrients with food.		
15.	Asphyxia of newborns and perinatal CNS lesions: prevention,	3	
	differential diagnosis and principles of treatment.		
16.	Workshop preparation	50	
	Total:	95	

# 7. Individual assignment

Not planned in this working program for academic year (order № 1053-z of 24.03.2023)

### 8. Methods of teaching

Workshops are clinically oriented and directed to control theoretical material and development of practical skills and ability to analyze and apply knowledge to solve practical problems. Workshops mostly held in the children's departments of clinical facilities of the department.

- Each session begins with test control conducted to assess initial knowledge and determine the degree of readiness of students to workshop.
- The teacher identifies the purpose of lesson and creates a positive cognitive motivation; answers the students' questions that arose during learning of individual work.
- During the main stage, students personally examine their own pre-selected sick children, take medical history, examine children, and perform diagnostic manipulation and more. After that, the teacher performs clinical round, when students report about their patients and about the results of their independent work.
- Control of the main stage of the workshop conducts via evaluation of student practical skills, ability to solve typical case studies. The teacher discusses and gives an explanation highlights the features of the disease in the individual child, focuses on more efficient conduct of examination methods.
- On the final stage, to assess the level of mastering the topic, teacher offers to solve the case studies. The teacher sums up the lesson gives students tasks for independent work, points to key questions following topics and offers a list of recommended books for independent reading.
- During the workshop, the following educational technologies, modes of transmission and assimilation of knowledge and skills are used:
  - practical workshop
  - simulation technology
  - clinical practice session
  - interactive educational games
  - case methods
  - multimedia presentations
  - educational video.

#### 9. Methods of control

Types of monitoring and evaluation system implemented to comply with the discipline and instruction of the system of evaluation of educational activity of students in credit-transfer process, approved by Ministry of Health (reference MOH of Ukraine № 08.01-47/10395 of 15.04.2014)

When assessing students' knowledge, preference is given to standardized methods of control: testing (writing), structured written work, standardized control of practical skills, work with standard medical records.

- Types of control current
- Form of final control credit
- **Evaluation criteria** (current control, final control).

**10. Current control** is carried out during training sessions and aims to verify the assimilation of students' learning material.

Forms of current control:

- Test tasks (from the base "Step-2")

- Assessment of practical skills

- Complex situational tasks

10.1 Evaluation of current educational activities.

During the assessment of mastering each topic for the current educational activity of the student, grades are set on a 4-point (traditional) scale, taking into account the approved assessment criteria for the discipline. This takes into account all types of work provided by the curriculum. The student must receive a grade on each topic. The student must receive a grade from each topic for further conversion of grades into scores on a multi-point (200-point) scale.

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

Current control is carried out at each practical lesson according to the specific objectives of each topic. Traditional grades are displayed in the student's journal during practical classes. Practical classes during the study of the module "Pediatrics" are structured and provide a comprehensive assessment of all types of educational activities (learning tasks) that students perform during the practical lesson:

• The student answers 10 tests (tests on the topic of the lesson, format A). Correct answer to 10-9 tests = 5 points; 8-7 points = 4 points; 6-5 tests = 3 points; 4 or less tests = 0 points.

• Answers standardized questions, knowledge of which is necessary to understand the current topic.

• Demonstrates knowledge and skills of practical skills in accordance with the topic of the practical lesson

• Solves a case on the topic of the lesson

# Criteria of marks of current educational activity.

Excellent («5») – student answers correctly 90-100% MCQ tests (from database «Step-2»).

Correctly, accurately, and logically answers all the standardized questions of the current topic.

Closely links theory with practical knowledge and properly demonstrates practical skills. Analyzes the results of the lab/instrumental investigations without problems and has proper methods of examination of the patient. Performs differential diagnosis. Solves situational tasks with elevated level of difficulty and knows how to compile the material.

**Good** («4») – student correctly answers 70-89% MCQ tests (from database «Step-2»). Correctly answers all the standardized questions of the current topic. Demonstrates knowledge of practical skills. Correctly uses theoretical knowledge to solve practical tasks, Differential diagnosis.

Knows how to solve easy and of medium difficult situational tasks. Contains the necessary practical knowledge and techniques and their uses, in excess of the required minimum.

Satisfactory («3») - student correctly answers 50-69% MCQ tests (from database «Step-2»).

Incomplete, with the help of additional questions answers all the standardized questions on the current topic. Cannot independently form a clear logical answer. While the students is answering and demonstrating practical knowledge, he/she makes mistakes. Can solve only the easiest situational tasks. Has knowledge of only the minimum methods of investigations.

**Unsatisfactory** (**«2»**) – student correctly answers 50% of MCQ tests (from database «Step-2»).

Doesn't know the material of the current topic, cannot formulate a logical answer, cannot answer additional questions, doesn't understand the content of the topic. While the student is answering and demonstrating practical skills, makes significant mistakes.

**Evaluation of independent work** students in preparation for classroom workshops carried out during the current control topics at the classroom.

# 11. Forms of final control of learning success

Form of the final control -  $\ensuremath{\textbf{credit}}$ 

It consists of assessing the assimilation of students' learning material solely on the basis of the results of their implementation of the academic plan in the discipline of "Pediatrics".

Control methods are standardized and include control of theoretical and practical training.

Students are admitted to the semester final control:

- who have performed all types of work, tasks provided for in the curriculum for the semester in accordance with the discipline;

- attended all classes provided by the curriculum;

- worked out missed classes;

- scored the number of points for the current success, not less than the minimum.

For students who have missed classes, classes are allowed with the permission of the dean to work off academic debt until a certain date within the semester.

The credit is granted after the end of the discipline (during the last lesson).

The credit is granted by teachers who conducted practical and other classes in the study group.

Students receive credit if the average score on the current performance during the semester is at least "3" (120 points on a 200-point scale).

The entry is made in the student's record book and credit-examination chart.

### **12.** Scheme of accrual and distribution of points received by students:

For disciplines to which the form of the final control is the credit:

*The maximum number of points* that a student can obtain for current educational activity at the study course is 200 points.

*The minimum number of points* that a student must collect for current educational activity for enrollment course is 120 points.

*Calculation the number of points* received is based on the traditional student ratings scale in the study disciplines during the semester, by calculating the arithmetic mean (AM), rounded to two decimal places. The resulting value is converted into points by multi-score scale as follows:

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

4-	200-	4-	200-	1	4-	200-		4-	200-
бальна	бальна	бальна	бальна		бальна	бальна		бальна	бальна
шкала	шкала	шкала	шкала		шкала	шкала		шкала	шкала
5	200	4.45	178	]	3.92	157		3.37	135
4.97	199	4.42	177		3.89	156		3.35	134
4.95	198	4.4	176	1	3.87	155		3.32	133
4.92	197	4.37	175	1	3.84	154		3.3	132
4.9	196	4.35	174	]	3.82	153		3.27	131
4.87	195	4.32	173	]	3.79	152		3.25	130
4.85	194	4.3	172	1	3.77	151		3.22	129
4.82	193	4.27	171	1	3.74	150		3.2	128
4.8	192	4.24	170	1	3.72	149		3.17	127
4.77	191	4.22	169	1	3.7	148		3.15	126
4.75	190	4.19	168	]	3.67	147		3.12	125
4.72	189	4.17	167	1	3.65	146		3.1	124
4.7	188	4.14	166	]	3.62	145		3.07	123
4.67	187	4.12	165	]	3.57	143		3.02	121
4.65	186	4.09	164		3.55	142		3	120
4.62	185	4.07	163		3.52	141		Менше	Недос-
4.6	184	4.04	162	]	3.5	140		З	татньо
4.57	183	4.02	161	]	3.47	139		3	
4.52	181	3.99	160		3.45	138			
4.5	180	3.97	159		3.42	137			
4.47	179	3.94	158	]	3.4	136			

Scores for discipline are converted regardless of discipline both in scale ECTS, and 4-point scale. Score scale ECTS 4-point scale not converted and vice versa.

The scores of students studying in one specialty, taking into account the number of scores earned in the discipline are ranked on the ECTS scale as follows:

Score ECTS	Statistical range
A	The best 10% students
В	Next 25% students

С	Next 30% students
D	Next 25% students
E	Next 10% students

Ranking on the assignment of grades "A", "B", "C", "D", "E" is conducted for students of this course who are studying in one specialty and have successfully completed the discipline. Students who receive an FX, F ("2") grade are not included in the list of ranked students. Students with an FX grade automatically receive an "E" after resumption.

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

Scores in 200 scale	Score according to
	the four-point scale
From 170 to 200	5
From140 to 169	4
From139 to minimum number of points, which the student should acquire in the	3
discipline	
Lower than the minimum number of points that the student should attain in the	2
discipline	

# 13. Methodological aid

- Work program of discipline
- Lectures, practical classes and independent work of students
- Guidelines to practical training for students
- Instructions for teachers training
- Methodical materials, which ensure independent work of student
- Tests and control cases for practical classes
- Situational cases for practical classes
- The list of questions to final control
- The list of standardized methods for performing practical skills

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