

NATIONAL BOGOMOLETS MEDICAL UNIVERSITY
Pediatric department №2

Vice-rector for scientific and pedagogical
educational work



WORKING PROGRAM OF EDUCATIONAL DISCIPLINE

«Propedeutics of pediatrics, including nursing practice, basic medical skills in the pediatric department»

Educational level: second (Master's degree)

Field of knowledge: 22 («Health care»)

Specialty: 222 («Medicine»)

Educational program of the second master's level of the Higher education

2024/2025

Working program of the discipline "Propaedeutics of pediatrics, including nursing practice, basic medical skills in the pediatric department" for students of the Faculty of Medicine No. 2, 3rd year of study, in the direction of training specialists of the second (master's) level, in the specialty - 222 "Medicine".

Developers:

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Discussed and approved on Cyclic methodical meeting on pediatric disciplines of the Bogomolets National Medical University

Protocol № 1 from August 29, 2024

The Head, professor of the pediatric department №1,

PhD



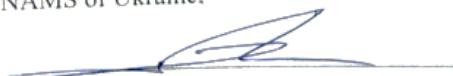
T.V.Pochinok

Discussed and approved on the meeting of the pediatric department №2

Protocol №1 from August 26, 2024

The Head of the pediatric department №2,
Corresponding member of NAMS of Ukraine.

PhD, professor



O.P.Volosovets

Discussed and approved at the meeting of the Department of Pediatrics №2
Protocol from « 26 » _ 08 _ 2024 year № 1

Head of the Department,
Corresponding Member NAMS of Ukraine,

Doctor of Medicine, Professor

Volosovets O.P.

Approved on the meeting of CMC disciplines

Protocol № 1 from August,29 2024

The Head of CMC of pediatric disciplines,

PhD, professor _____
(signature)

T.V. Pochinok

Reapproved:For 20___/20___ y.s. _____ "___"___20___, protocol №
(signature) (full name)

For 20___/20___ y.s. _____ "___"___20___, protocol №

1. Educational discipline description

Parameters	Field of knowledge, specialty, educational level	Educational discipline characteristics	
		Day form	External form
Credits number – 5	Field of knowledge 22 «Health care» (code and name)	Day form of study Essential	
Modules - 1	Specialty: 222 Medicine (code and name)	Year of study	
Content modules – 4		3 rd	
Individual scientific and research task (name)		Semester	
Total credits/hours number –5/150*		5 th	6 th
Weekly hrs for day form of study: (40 weeks) auditory – 2.25 hrs/week; independent work of student – 1,5 hrs/week	Educational level: second (master's)	10 hrs	-
		Practical classes – 80 hrs	
		37,5 hrs	42,5 hrs
		Independent work – 60 hrs	
		16 hrs	44 hrs

		Individual tasks: Students case report composition – 4 hrs
		Control type: Final (summarizing) control (FC)

* Auditory – 90 hrs.; independent work – 60 hrs.

Working program of the discipline "Propaedeutics of pediatrics, including nursing practice, basic medical skills in the pediatric department" compiled in accordance with the standard of higher education in the specialty 222 "Medicine" approved by Order of the Ministry of Education and Culture of Ukraine No. 1197 of 08.11.2021 (222-Medytsyna.mahistr.09.11.pdf (mon.gov.ua)) and OPP "Medicine".

2. Purpose, suspected results of study and criteria for assessment of the results of study

Purpose:

- acquisition by the student of knowledge, abilities, skills and professional competences in propaedeutics of pediatrics, necessary in the process of further education of pediatric disciplines at a medical university and in the professional activity of a doctor in the field of health care;
- the student's acquisition of knowledge, abilities, skills and professional competences of the professional activity of a nurse in a children's hospital based on knowledge and understanding of the peculiarities of the functioning of a child's body at various ages in compliance with the principles of medical ethics and deontology.

Results of discipline study:

• *to know:*

-the main historical stages of the development of pediatrics, the place of pediatrics in the system of general medicine; periods of childhood and characteristics of development and morbidity of children in each of them; patterns of physical and neuropsychological development of children; anatomical and physiological features of organs and systems at different age periods of a child's life and their clinical significance; semiotics of syndromes of damage to each of the systems of the child's body and the most common diseases, principles of rational feeding of infants and nutrition of healthy children over one year old;

-responsibilities of the medical staff in the pediatric department, the main indicators of the assessment of the general condition of the patient, indications for carrying out and the technique of performing hygienic treatment of hands, standards of patient preparation for conducting diagnostic laboratory and instrumental research, the technique of carrying out diagnostic and therapeutic procedures and manipulations, the organization of medical nutrition for children in pediatric department, algorithm of basic cardiopulmonary resuscitation in children, means of ensuring infectious safety of medical personnel.

• *To be able to:*

-make conclusions about the physical and psychomotor development of children of different ages; conduct clinical examination of children of different ages and evaluate the obtained data; interpret

the results of laboratory and instrumental studies; calculate, compile and adjust the daily diet of healthy young children;

-prepare the patient for laboratory and instrumental research; perform diagnostic and therapeutic procedures and manipulations; ensure compliance with the requirements of the sanitary and anti-epidemic regime in the department; keep the necessary medical documentation; use personal protective equipment (PPE) depending on the degree of infectious threat; provide emergency medical care using standard schemes; to possess the moral and ethical principles of a medical specialist and the principles of professional subordination.

Criteria for assessment of the results of study

1. Knowledge, skills and competences of students for all types of control are determined by scores of the point-rating letter system, which have a proportional ratio.

2. The grade "**excellent**" is assigned if the student has demonstrated mastery of the program material and has not made any mistakes and inaccuracies; timely and correctly completed homework and individual tasks (writing an educational history of the disease), control theoretical and practical works and submitted reports on them, showing at the same time professional original thinking; was engaged in research work (became a graduate of student research contests); took part in olympiads (became the winner of international or among Ukraine olympiads in pediatrics); independently and at the instruction of the teacher used additional scientific literature when studying the discipline, independently managed to systematize the program material.

3. The grade "**good**" is given if the student has mastered the program material by no less than 75% and at the same time has not made gross mistakes in the answers, completed the general control and individual assignments in a timely manner and passed them without fundamental remarks, completed them correctly and passed them in a timely manner homework, used additional literature as instructed by the teacher, engaged in research work, managed to systematize the program material with the help of the teacher.

4. The grade "**satisfactory**" is given in the case when the student has mastered the program material by at least 50%, needed the teacher's help when completing tests and homework, and made inaccuracies, unprincipled or fundamental mistakes, corrected by the student himself after the teacher's instructions; did not show activity in research work, limited himself only to educational literature specified by the teacher; experienced great difficulties in systematizing the material.

5. The grade "**unsatisfactory**" is assigned if the student has identified gaps in the knowledge of the main material provided by the program, has not mastered more than half of the discipline program, has made fundamental mistakes in the answers that he could not correct; did not complete individual tasks provided for by forms of current, intermediate and final control; did not work through the required amount of basic literature provided by the program.

3. Program of the educational discipline "Propaedeutics of pediatricians, including nursing practice, basic medical skills in the pediatric department"

Includes 4 content modules and 32 topics:

Content Module 1. The subject and place of pediatrics in the health care system. Child's

growth and development

Topic 1. The subject and place of pediatrics in the health care system, the main stages of development

Definition of the "Pediatrics" science, historical stages of the development of pediatrics in the world and in Ukraine and their significance. The most outstanding pediatric scientists, their contribution to the development of maternity and childhood care in the country. The place of "Pediatrics" in the system of general medicine and in the training of a general practitioner. Tasks of the "Propaedeutics of Pediatrics" course.

Topic 2. System of children's health care organization in Ukraine

Principles of providing medical care to children in Ukraine. The structure and organization of the work of the main health care facilities, in which primary medical and sanitary, specialized and highly specialized medical care for children is provided.

Topic 3. Periods of childhood. Newborn period peculiarities

The need for periodization of childhood. Classification of periods of childhood, their sequence, essence and duration of each. Critical periods of childhood. Physiological and transitional states in the newborn period. The concept of the maturity of a newborn; signs of prematurity. Methods of assessing a child's condition at birth.

Topic 4. Physical development of children, anthropometry results assessment. Physical development disorders semiotics

Characteristics of children's growth and development processes. Patterns of increase in basic anthropometric indexes with the age of the child. The importance of conducting a PD assessment, the regulated frequency of assessment depending on the age of the child. Methods of evaluating the results of anthropometry. Semiotics of violations of children's physical development. Factors of positive and negative influence on children's physical development.

Content Module 2. Anatomic and physiological peculiarities of organs and systems in children, clinical examination methods. Semiotics of disorders of each system and the most common diseases

Topic 5. Anatomic and physiological peculiarities of nervous system in children. Psychomotor development of children, methods of its assessment and common signs of violation

The main anatomical and physiological features of different parts of the nervous system in children, their clinical significance. Definition of the concept of "psychomotor development of children", stages of maturation of the main mental functions. Regulated frequency of assessment of the child's psychomotor development depending on age; assessment methods (coefficient of development (QD), epicrisis period, main lines of development).

Topic 6. Methodic of nervous system clinical inspection and additive methods of examination. Semiotics of nervous system disorders in children

Methods of clinical neurological examination of children. Semiotics of the main disorders syndromes and diseases of the nervous system in children. Indexes of cerebrospinal fluid in healthy children of different ages and in pathology.

Topic 7. Anatomic and physiological peculiarities, methods of clinical inspection of skin and subcutaneous tissue, additive methods of examination. Semiotics of skin and subcutaneous tissue

disorders in children

Morphological and functional features of the skin and its derivatives in children; their influence on skin functions in young children. Methods of skin and subcutaneous tissue inspection. Semiotics of skin lesions (color changes, vascular changes, primary and secondary elements of skin rash), their causes. Causes and consequences of insufficient or excessive development of subcutaneous tissue.

Topic 8. Anatomical and physiological features, clinical examination methods, additional methods of research of the musculoskeletal system. Semiotics of diseases of the musculoskeletal system.

Features of the mineral composition of bones, the structure of tubular bones and their blood supply in young children, clinical significance. Timing and significance of the appearance of physiological curves of the spine, timing and order of eruption of primary and permanent teeth. The concept of "bone age" and its clinical significance. Features of muscle development (biochemical composition, histological structure) in young children. Methodology of examination of the musculoskeletal system; semiotics of diseases

Topic 9. Anatomical and physiological features, methods of clinical examination of respiratory organs in children, additional research methods.

Age-related anatomical and physiological features of each part of the respiratory system and their clinical significance. Methods of clinical examination of the respiratory system.

Topic 10. Respiratory system main syndromes of disorders and semiotics of the most common diseases

Clinical signs of the respiratory organs disorders: rhinosinusitis, pharyngitis, bronchitis, bronchiolitis, pneumonia, pleurisy. The most frequent syndromes of the respiratory system diseases in children: obstructive diseases; stenotic laryngotracheitis; congenital stridor, respiratory distress syndrome of newborns, respiratory failure syndrome. Laboratory and instrumental methods of research of respiratory organs in children.

Topic 11. Anatomical and physiological features, methods of clinical examination of the cardiovascular system in children.

Embryogenesis of the cardiovascular system, the timing of the formation of congenital defects of the heart and large vessels. Features of blood circulation in the fetus and newborn. Age-related anatomical and physiological features of the heart and blood vessels, their clinical significance. Methods of clinical examination of the cardiovascular system (features of the topography of the heart, frequency and rhythm of heart contractions, blood pressure in the age aspect).

Topic 12. Additional methods of research of the cardiovascular system. Semiotics of the main diseases of the cardiovascular system in children.

Semiotics of diseases of the cardiovascular system: signs of endocarditis, myocarditis, pericarditis, congenital and acquired heart defects. Instrumental research methods (ECG, echocardiography, X-ray), their indexes in normal and pathological conditions. Signs of circulatory failure in children.

Topic 13. Anatomical and physiological features, methods of clinical examination of the digestive system in children

Age-related anatomical and physiological features of the digestive system in children, their clinical significance. Methods of clinical examination of digestive organs.

Topic 14. Additional methods of examination of the digestive system. Semiotics of lesion syndromes and basic diseases of the digestive system.

The main symptoms (nausea, vomiting, heartburn, odynophagia, belching, aerophagia, diarrhea, constipation, others) and syndromes (pain, dyspeptic, etc.) characteristic of diseases of the digestive organs in children. Laboratory and instrumental (abdominal sonography, endoscopic, X-ray) examination methods in the diagnostic of the digestive organs diseases.

Topic 15. Anatomical and physiological features, methods of clinical examination of the urinary system in children, additional examination methods. Semiotics of urinary system main syndromes and diseases in children.

Age-related anatomical and physiological features of kidneys, ureters, urinary bladder and urethra in children, their clinical significance. Methods of examination of the urinary system. Laboratory and instrumental methods of the urinary system examination. Semiotics of urinary system main syndromes and diseases in children.

Topic 16. Anatomical and physiological features, methods of clinical examination of the blood system in children. Laboratory research methods. Clinical and hematological semiotics of the main syndromes and diseases of the blood system in children

Stages of embryonic hematopoiesis, features of hematopoiesis in the postnatal period. Procedure and method of clinical examination of the blood system. The value of the main indicators of the general blood test at birth, the dynamics of their changes with the age of the child, the reasons for these changes. Peculiarities of myelogram and hemostasis in the age aspect. Clinical and hematological characteristics of the main syndromes of the blood system disorders in children.

Topic 17. Anatomical and physiological features, clinical examination methods, additional research methods. Semiotics of diseases of the immune system in children.

Stages of development of the immune system in children. Mechanisms of normal immune response, particularities in children (critical periods of immune system functioning). Procedure and technique of examination of the immune system. Laboratory and instrumental methods of examination: immunological tests of I-II levels, determination of the cardio-thymic-thoracic index. Contents of basic concepts of clinical immunology (immune status, immune deficiency, immune system dysfunctions, immunodeficiency state).

Topic 18. Anatomical and physiological features, methods of clinical examination of the endocrine system, semiotics of endocrine glands diseases in children.

Embryogenesis and anatomical and physiological features of endocrine glands in children: thyroid and parathyroid glands, adrenal glands, endocrine tissue of the pancreas, gonads, pituitary gland, pineal gland. Methods of clinical examination of the endocrine system. Semiotics of syndromes of hyper- and hypofunction of endocrine glands.

Topic 19. Curation of the patient, educational case report composition.

Acquaintance with the scheme of writing the child's medical history (sequence and content of each section): passport part, sections of history and objective examination of the child. Curation of the patient in the presence of the teacher of the group. Writing medical history; formulating conclusions, drawing up a plan for laboratory and instrumental examination. Explanation of individual provisions of "history" to the teacher's question.

Content Module 3. Types of feeding of infants and children elder than 1 year. Metabolism peculiarities in childhood.

Topic 20. Breastfeeding, its advantages comparing to artificial feeding. Solids introduction

Quantitative and qualitative composition of mother's milk in comparison with cow's milk. Immunobiological factors of mother's milk and other advantages of natural feeding. Rules and techniques of breastfeeding, the first application to the mother's breast. Difficulties in breastfeeding. Nutrition of nursing women. The child's daily need for basic food ingredients and energy. Methods of calculating the daily amount of food, determining the frequency of food intake. Feeding (supplementary food) and correction of nutrition: recommended products and their volume, term and sequence of introduction.

Topic 21. Artificial and mixed feeding of infants

Definition of the concepts of "artificial feeding", "mixed feeding" of infants. Reasons for transferring a child to mixed or artificial feeding. Classification and composition of milk mixtures used for mixed and artificial feeding of infants in the first and second half of life. Definition of the term "hypogalactia", its causes, classification, prevention, treatment.

Topic 22. Feeding of prematurely born children

Features of the gastrointestinal tract of prematurely born children, clinical significance. Indications for total parenteral feeding. Means of enteral feeding of a child with a low body weight at birth depending on the gestation period. Methods of calculating the daily amount of milk or milk mixtures.

Topic 23. Principles and organization of rational nutrition for children older than one year

Features of the qualitative and quantitative provision of the diet of children older than one year, with the main food ingredients, minor biologically active compounds, and energy. General principles of optimal nutrition: conditions for a balanced diet, optimal nutrition regime, adequate technological and culinary processing of products and dishes, taking into account the individual characteristics of children. Factors that affect the formation of eating behavior of children of different age groups.

Topic 24. Peculiarities of energy, protein, carbohydrate, lipid, water-electrolyte and acid-base metabolism in children

Definition of concepts: "assimilation", "dissimilation", "body metabolism". Features of energy, protein, carbohydrate and lipid metabolism in children; laboratory indicators of the state of each of the types of metabolism; signs of disorders. The amount of water and its distribution in the body of children of different ages; ways and speed of its loss (physiological and pathological). Peculiarities of electrolyte metabolism in young children, signs of their quantity disturbance and causes of these changes. Indexes of the acid-alkaline balance of the organism; peculiarities of the mechanisms of regulation of the acid-alkaline balance in children.

Content Module 4. Nursing practice, basic medical skills at the pediatric department

Topic 25. Technique of anthropometric measurements in children, evaluation of the obtained data

The technique of anthropometric measurements in children of different ages (measurement of body length and weight, head and chest circumferences). Evaluation of the obtained data by methods of standard deviations and centile standards. Calculation of BMI and its assessment in children. Acquaintance with conducting other anthropometric measurements.

Topic 26. Hygienic procession of hands

Hygienic procession of hands: hygienic washing and hygienic hand antiseptics (indications for carrying out, execution technique). A multimodal strategy for improving hand hygiene in health care facilities.

Topic 27. Personal protective equipment for medical workers.

Personal protective equipment for medical workers, taking into account the degree of infectious danger (indications for use, rules and sequence of putting on and taking off).

Topic 28. Participation of a nurse in diagnostic process

Measurement of pulse and breathing rate, technique of working with a pulse oximeter, measurement of blood pressure. Registration of standard ECG in 12 leads in children of different ages. Carrying out the Ruffier test.

Taking smears and washings from the nose and from the oropharyngeal area. Taking urine tests from children of different ages for research. Taking feces for research, scraping from perianal skin folds for enterobiosis.

Preparation for conducting ultrasound, X-ray, endoscopic examinations of organs of the digestive and urinary systems. Maintenance of medical documentation.

Blood collection for research, vacuum systems for blood collection.

Topic 29. Participation of a nurse in the treatment process

The technique of enteral administration of medicines: varieties of medicinal forms, administration of medicines through the skin and through the mucous membranes (instillation of drops and application of ointment in the eye and nose).

Inhalation route of drug administration, types of inhalers (advantages and disadvantages), method of inhalation. Methods of supplying oxygen.

Parenteral route of drug administration: structure and types of syringes, peripheral catheters; the technique of subcutaneous, intradermal, intramuscular, intravenous injections, intravenous drip administration of drugs); injection complications.

Topic 30. The work of a nurse in the vaccination office

Organization of vaccination of children in health care institutions. The work of a nurse in the vaccination office.

Topic 31. Medical nutrition. Organization of nutrition for patients in departments of a children's hospital

Therapeutic nutrition, principles and methodology of prescribing for children. Organization of nutrition of patients in departments of a children's hospital, functional duties of a dietitian nurse.

Topic 32. Basic cardiopulmonary resuscitation in children at the prehospital stage. Stopping external bleeding

Emergency service. Algorithm of actions of basic cardiopulmonary resuscitation at the pre-hospital stage in children. Automatic external defibrillator: purpose, where it is stored in places of public access, what does the "universal AED sign" look like, application algorithm. Methods of stopping bleeding.

4. Structure of the educational discipline

Content modules and topics	Hours (acad.)				
	Day form of study				
	Total	including			
		Lections	Pract.cl.	IW	CR
Content Module 1. Pediatrics place and role in the health care system. Child's growth and development					
Topic 1. Pediatrics place and role in the health care system; main stages of the development				0,5	
Topic 2. Health care system organization in Ukraine				0,5	
Topic 3. Periods of childhood. Newborns period peculiarities	1	2,5	1		
Topic 4. Physical development of children, anthropometry results assessment. Physical development semiotics in children		1	2,5	1	
<i>Totally for the content module № 1:</i>	10	2	5	3	
Content Module 2. Anatomic and physiological peculiarities of organs and systems in children, methodic of clinical inspection. Semiotics of syndromes and main diseases					
Topic 5. Anatomic and physiological peculiarities of nervous system in children. Psychomotor development in children, methods of assessment, signs of disorders		1	2,5	1	
Topic 6. Methodic of the nervous system clinical inspection in children. Semiotics of main diseases			2,5	1	
Topic 7. Anatomic and physiological peculiarities of skin and subcutaneous tissue, additive methods of examination. Semiotics of main disorders			2,5	1	
Topic 8. Anatomic and physiological peculiarities, methodic of clinical examination and additive methods of inspection of musculoskeletal system in children			2,5	1	
Topic 9. Anatomic and physiological peculiarities, methodic of clinical inspection of the respiratory organs in children, additive methods of examination		0,5	2,5	1	
Topic 10. Semiotics of main disorders and diseases of the respiratory organs in children		0,5	2,5	1	
Topic 11. Anatomic and physiological peculiarities and clinical inspection methodic of the cardiovascular system in children		0,5	2,5	1	
Topic 12. Additive methods of cardiovascular system examination in children. Cardiovascular diseases semiotics		0,5	2,5	1	
Topic 13. Anatomic and physiological peculiarities and clinical inspection methodic of the digestive system in children		0,5	2,5	1	
Topic 14. Additive methods of the digestive system examination. Semiotics of main syndromes and diseases of the digestive system in children		0,5	2,5	1	
Topic 15. Anatomic and physiological peculiarities, methodic of clinical inspection of the urinary system in children, additive		1	2,5	1	

methods of examination. Semiotics of the urinary system affections in children				
Topic 16. Anatomic and physiological peculiarities and clinical inspection methodic of the blood system in children. Laboratory methods of examination. Clinical and hematological semiotics of main syndromes and diseases	1	2,5	1	
Topic 17. Anatomic and physiological peculiarities, clinical inspection methodic and semiotics of diseases of the immune system in children		2,5	1	
Topic 18. Anatomic and physiological peculiarities, clinical inspection methods and semiotics of the most common diseases of the endocrine system in children	1	2,5	1	
Topic 19. Supervision of patients (curation) Composition of the educational case report		2,5	1	4
<i>Totally for the content module № 2:</i>	63,5	7	37,5	15 + 4
Content Module 3. Feeding of infants and children older than 1 year. Metabolism peculiarities in childhood				
Topic 20. Breastfeeding and its advantages comparing with artificial feeding. Solids introduction	0,5	2,5	1	
Topic 21. Artificial and mixed feeding of infants	0,5	2,5	1	
Topic 22. Feeding of prematurely born children			1	
Topic 23. Principles and organization of rational feeding of children older than 1 year		2,5	1	
Topic 24. Peculiarities of energetic, protein, carbohydrate, lipid, electrolyte metabolism and acid-base balance			2	
<i>Totally for the content module № 3:</i>	14,5	1	7,5	6
Content Module 4. Nursing practice, basic medical skills at the pediatric department				
Topic 25. Anthropometric measurements technique in children and assessment of the received results		2	2	
Topic 26. Hygienic procession of hands		2	2	
Topic 27. Individual protection means for the medical staff		2	2	
Topic 28. Medical nurse participation in the diagnostic process	6	6		
Topic 29. Medical nurse participation in the treatment process	6	6		
Topic 30. Medical nurse work at the vaccination office		2	2	
Topic 31. Treatment (medical) nutrition. Organization of feeding of patients at the pediatric departments		2	2	
Topic 32. Basic cardiopulmonary resuscitation in children on pre-hospital stage. Bleeding treatment		4	4	
<i>Totally for the content module № 4:</i>	52		26	26
Final control	10	4	6	
TOTAL:	150	10	80	60

5. Topical plan of lections

No	Topic	Hrs
1	Periods of childhood. Newborns period peculiarities	1
2	Physical development of children, methods of its assessment. Importance of PD assessment as an integral index of the child's health. Signs of PD violation	1
3	Anatomic and physiological peculiarities of the nervous system in children. Psychomotor development and methods of its assessment. Semiotics of disorders	1
4	Anatomic and physiological peculiarities of the respiratory system in children. Semiotics	1

	of the most common disorders	
5	Anatomic and physiological peculiarities of the cardiovascular system and vessels in children. Semiotics of the most common disorders	1
6	Anatomic and physiological peculiarities of the digestive system in children. Semiotics of the most common disorders	1
7	Anatomic and physiological peculiarities of the urinary system in children. Semiotics of the most common disorders	1
8	System of blood: reasons and character of age peculiarities of main laboratory indexes. Clinical and hematological characteristics of main syndromes in blood system affection in childhood	1
9	Anatomic and physiological peculiarities of endocrine glands in children. Semiotics of hyper- and hypofunction of the endocrine glands in children	1
10	Feeding of children, types of feeding, indications and contraindications to each type of feeding. Breastfeeding benefits for mother and child. Solids introduction and feeding correction	
	TOTAL	10

6. Thematic plan of practical lessons

No	Propaedeutic pediatrics topics:	Hrs
1	Periods of childhood, characteristics of each. Neonatal period, distribution of newborns by gestational age, signs of morphological and functional maturity/immaturity, borderline states (transient). Apgar's scale. The primary toilet of a newborn	2,5
2	Physical development (PD) of children, characteristics of growth and development processes, patterns of increase in basic anthropometric indexes and their assessment. Semiotics of FD disorders	2,5
3	Anatomic and physiological peculiarities of the nervous system in children. Psychomotor development and methods of its assessment.	2,5
4	Methods of clinical neurological examination of children. Semiotics of main diseases of the nervous system in children. Features of cerebrospinal fluid in children and semiotics of its changes in pathology	2,5
5	Anatomical and physiological features, clinical methods of examination and semiotics of diseases of the skin and its derivatives, subcutaneous tissue. Methods of examination of lymph nodes in children	2,5
6	Anatomical and physiological features, methods of examination of the musculoskeletal system in children. Semiotics of diseases of the musculoskeletal system in children	2,5
7	Anatomical and physiological features, methods of examination of the respiratory system in children	2,5
8	Semiotics of the respiratory system main disorders and diseases. Laboratory and instrumental methods of the respiratory system examination	2,5
9	Anatomical and physiological features of the cardiovascular system in children. Methods of physical examination of the cardiovascular system in children	2,5
10	Additional methods of examination of the cardiovascular system. Semiotics of the main syndromes and diseases of the cardiovascular system in children	2,5
11	Anatomical and physiological features, methods of clinical examination of the digestive system in children	2,5
12	The main symptoms and syndromes of the digestive organs disorders in children. Laboratory-instrumental methods of examination. Semiotics of the main diseases.	2,5
13	Anatomical and physiological features, methods of examination of organs of the urinary system in children. Laboratory-instrumental methods of examination. Semiotics of syndromes of the urinary system disorders	2,5

14	Peculiarities of the blood system in children of different age groups. Methods of clinical and laboratory examination of children with lesions of the blood system. Clinical and hematological semiotics of the main syndromes and diseases of the blood system in children	
15	Anatomical and physiological features, main semiotics of diseases of the immune system in children	2,5
16	Anatomical and physiological features, examination methods, semiotics of diseases of the endocrine system in children	2,5
17	Supervision of patient and educational case report composition	2,5
18	Natural feeding of infants. Quantitative and qualitative composition of mother's milk. Methods of calculating the daily amount of food and diet. Feeding (supplementary food) and nutritional correction. A child's daily need for food ingredients and energy	2,5
19	Artificial and mixed feeding of babies. Classification and characteristics of milk mixtures for artificial and mixed feeding. Techniques of artificial and mixed feeding, criteria for evaluating their effectiveness. Supplementation and correction of nutrition during artificial and mixed feeding	2,5
20	Principles and organization of the rational feeding of children older than 1 year <i>Topic "nursing practices and basic medical skills at the pediatric department":</i>	2,5
21	The technique of anthropometric measurements in children, evaluation of the obtained data. Hygienic procession of hands. Personal protective means for medical workers	6,0
22	Medical nurse participation in the diagnostic process	6,0
23	Medical nurse participation in the treatment process	6,0
24	The work of a nurse in the vaccination office. Medical nutrition; organization of nutrition for patients in children's hospital departments. Basic cardiopulmonary resuscitation for children at the pre-hospital stage. Bleeding management.	6,0
25	Practical skills improvement. Filling of the documentation papers for the nursing practice Final module control for the discipline (FMC)	2,0 4,0
TOTAL for the discipline		80

7. Independent work of students (IWS)

№	TOPIC	HOURS	CONTROL TYPE
1.	Preparation for practical classes (according to "propaedeutic pediatrics" topics)	20	Current control
2	Independent work on topics which are not included to the auditory classes topical plan: <i>Pediatrics place and role; main stages of its development</i>	4	Final control
	<i>System of health care organization in Ukraine</i>	0,5	
	<i>Prematurely born newborns feeding</i>	1	
	<i>Peculiarities of energetic, carbohydrate, protein, lipid, electrolyte metabolism and acid-base balance in children. Semiotics of disorders</i>	2	
3	Educational case report composition	4	Current control
4	Preparation for the practical classes (according to the nursing practice topics)	26	Current control
5	Preparation for the final control:	6	Final control
Totally		60	

8. Individual tasks: educational case report composition with the aim of deepening, generalizing and consolidating the knowledge that the student receives in the process of learning, as well as applying knowledge in practice.

9. Methods of study:

a) methods of organizing and implementing educational and cognitive activities (explanation, instruction, story, lecture, conversation, solving situational problems, working with a textbook; illustration, demonstration, independent observation, practical and research work);

b) methods of stimulating educational activities (educational discussion, ensuring success in learning, cognitive games, creating a situation of interest in the teaching process, creating a situation of novelty, relying on the student's life experience; stimulating duty and responsibility in learning);

c) methods of control and self-control.

10. Methods and forms of control, points distribution, evaluation:

•**Methods of control:** tests, written, oral, practical (fulfillment of practical skills);

•**Forms of control:** initial (written/oral), current (combined: oral, written, practical), stage, final (combined).

Distribution of points students receive during learning the discipline

Types of evaluation	Number of points Maximal/Minimal
Current control	80/ no min.
Final control	120 / no min.
Incentive points for winners of pediatric olympiads of international or among higher education institutions of Ukraine, diploma winners of student scientific works competitions (by decision of the Academic Council of the Faculty)	
TOTALLY	200 / 111

Current control

10. Distribution of points that receive students

topic number	Current training activities	The maximum number of points
1	Periods of childhood, characteristics of each. Neonatal period, distribution of newborns by gestational age, signs of morphological and functional maturity/immaturity, borderline states (transient). Apgar's scale. The primary toilet of a newborn	3
2	Physical development (PD) of children, characteristics of growth and development processes, patterns of increase in basic anthropometric indexes and their assessment. Semiotics of FD disorders	3
3	Anatomic and physiological peculiarities of the nervous system in children. Psychomotor development and methods of its assessment.	3

four	Methods of clinical neurological examination of children. Semiotics of main diseases of the nervous system in children. Features of cerebrospinal fluid in children and semiotics of its changes in pathology	3
5	Anatomical and physiological features, clinical methods of examination and semiotics of diseases of the skin and its derivatives, subcutaneous tissue. Methods of examination of lymph nodes in children	3
6	Anatomical and physiological features, methods of examination of the musculoskeletal system in children. Semiotics of diseases of the musculoskeletal system in children	3
7	Anatomical and physiological features, methods of examination of the respiratory system in children	3
8	Semiotics of the respiratory system main disorders and diseases. Laboratory and instrumental methods of the respiratory system examination	3
9	Anatomical and physiological features of the cardiovascular system in children. Methods of physical examination of the cardiovascular system in children	3
10	Additional methods of examination of the cardiovascular system. Semiotics of the main syndromes and diseases of the cardiovascular system in children	3
11	Anatomical and physiological features, methods of clinical examination of the digestive system in children	3
12	The main symptoms and syndromes of the digestive organs disorders in children. Laboratory-instrumental methods of examination. Semiotics of the main diseases.	3
13	Anatomical and physiological features, methods of examination of organs of the urinary system in children. Laboratory-instrumental methods of examination. Semiotics of syndromes of the urinary system disorders	3
14	Peculiarities of the blood system in children of different age groups. Methods of clinical and laboratory examination of children with lesions of the blood system. Clinical and hematological semiotics of the main syndromes and diseases of the blood system in children	3
15	Anatomical and physiological features, main semiotics of diseases of the immune system in children	3
16	Anatomical and physiological features, examination methods, semiotics of diseases of the endocrine system in children	3
17	Supervision of patient and educational case report composition	3
18	Natural feeding of infants. Quantitative and qualitative composition of mother's milk. Methods of calculating the daily amount of food and diet. Feeding (supplementary food) and nutritional correction. A child's daily need for food ingredients and energy	3
19	Artificial and mixed feeding of babies. Classification and characteristics of milk mixtures for artificial and mixed feeding. Techniques of artificial and mixed feeding, criteria for evaluating their effectiveness. Supplementation and correction of nutrition during artificial and mixed feeding	3
20	Principles and organization of the rational feeding of children older than 1 year	3

21	The technique of anthropometric measurements in children, evaluation of the obtained data. Hygienic processing of hands. Personal protective means for medical workers	3
22	Medical nurse participation in the diagnostic process	3
23	Medical nurse participation in the treatment process	3
24	The work of a nurse in the vaccination office. Medical nutrition; organization of nutrition for patients in children's hospital departments. Basic cardiopulmonary resuscitation for children at the pre-hospital stage. Bleeding management.	3
27	Curation of a sick child, writing and protection of the child's history of illness	8
Total for the current activity		80
Final control, including:		
practical training		60
theoretical training		60
Total score		200

Current control

It is carried out on each practical lesson according to specific objectives for each topic.

The current control provides 100% survey of a group of students on a practical, seminars, test control, oral answer, the decision of situational tasks. Each topic also provides for control of practical skills.

For each stage of training the student receives a rating of "5-4-3-2", of which the teacher determines the arithmetic mean estimate, which translates into points according to the distribution of "5" - 3 points, "4" - 2 points, "3" - 1 point, "2" - 0 points. If during the determination of points for engaging the arithmetic mean score of "2", then this corresponds to 0 score.

The results of control of the level of knowledge of each component of the lesson.

1) Student readiness for the class (initial stage) is checked on the basis of the answer to 10 test tasks. At the first practical session, these questions are included in the final control.

For the correct answer to 9 - 10 tests the student receives a traditional grade of "5"; for 7 - 8 correct answers - a rating of "4", for 6 correct answers - a rating of "3" 0-5 correct answers - a rating of "2".

2) The student's oral survey is evaluated as follows:

5 is given when the student gives comprehensively accurate and clear answers without any direct questions; teaches material without errors and inaccuracies;

"4" is given if the student knows the content of the lesson and understands it correctly, answers the questions correctly, consistently and systematically, but they are not exhaustive, although the additional questions the student answers without errors;

"3" is given to the student based on his knowledge of the main content of the lesson and with a satisfactory level of his understanding, answers with the help of guiding questions, but answers the questions directly answered correctly.

"2" is given in cases where the student's knowledge does not meet the requirements of grade "3 points";

The main stage of the practical training involves the development of practical skills.

"5" is given when the student actively mastered the practical part of the class and methodically correctly demonstrates the practical skills envisaged by the program; takes the initiative when performing independent work.

"4" is given if the student fulfills the practical skills envisaged for mastering, but there may be some minor, self-correcting errors.

3 is assigned to the student when he or she is able to complete the basic practical tasks only after appropriate comments and assistance of the teacher.

"2" is given in cases where the student has obvious difficulties in learning practical skills, even after appropriate comments and correction of the teacher.

In order to evaluate a student's assimilation of a topic, he is asked to answer a question of a situational task.

"5" is given when the student freely solves structured situational problems of varying degrees of difficulty and gives comprehensive and correct answers to all questions.

"4" is given if the student is solving situational problems, experiencing difficulties only in the most difficult cases, or giving correct but incomplete answers to the questions.

3 is assigned to a student who solves situational problems, experiencing difficulties in simple cases; unable to systematically state the answer.

2 is given if the student has obvious difficulties in solving situational problems and gives incorrect answers to the questions.

Assessment of students' independent work in preparation for the classroom practical exercises is carried out during the ongoing control of the topic at the appropriate classroom lesson.

Assessment of mastering topics that are presented only for independent work and not included in the topics of practical classes, is carried out during the final control.

Assessing the writing of a child's development history as a compulsory individual work of the student occurs during defense during the individual work of the teacher with the student.

5 is given if a student has conducted a complete clinical examination of a sick child, correctly described its results, correctly identified clinical changes by organs and systems of the body, and evaluated the results of laboratory and instrumental methods of examination.

4 is given if the student has conducted a full clinical examination of a sick child but has made inaccuracies in the evaluation of the results of clinical changes, laboratory and instrumental methods of examination.

"3" is given if the student did not fully conduct the examination of the child, made some mistakes in the evaluation of clinical symptoms, laboratory and instrumental examination results.

If the student has made significant mistakes in the analysis of the clinical condition, the results of clinical, laboratory and instrumental examination of the sick child, the work is not accepted.

The recalculation of the score on a multilateral scale is as follows: a score of "5" - 8 points, a score of "4" - 6 point, a score of "3" - 4 points.

The maximum number of points that a student can earn for his / her current educational activity is 80 points. It is calculated by adding up the number of points that correspond to the grade of "excellent" in each practical session (3 points for practical classes 1-26) with the maximum score for mandatory individual work for the supervision of the child and for writing and protecting the child's development history (8 points).

The amount of points the student has accumulated as a result of the current study is a component of the overall assessment of the discipline. Current control does not set a minimum admission score for final discipline control.

FINAL CONTROL EVALUATION REGULATION

The final control is carried out upon completion of the study of subjects in the last two classes (5 academic hours).

Final control is allowed for students who have attended at least 75% of classrooms (lectures and practical classes) with all points accumulated during the course. If a student has attended less than 75% of the classroom hours, he or she is considered to have failed the curriculum and syllabus for the discipline, and therefore has to re-study the discipline.

The form of final control is standardized and includes control of theoretical and practical training.

Regulation of final control

The theoretical training is controlled within 2.5 academic hours. The student answers 30 A-format tests. This stage is considered difficult if the student provided at least 70% correct answers. The student also solves 2 structured situational problems for the assessment of the patient's condition with symptoms of the most common childhood diseases and laboratory and instrumental examinations.

The practical training of students is also checked during 2.5 academic hours. The student must complete 3 practical skills in examining the organs and systems of a sick child near the patient's bed; to evaluate the physical and psychomotor development of a young child and to provide appropriate nutrition.

Evaluation criteria for final control

The theoretical part

Test control:

Correct answer for 27 - 30 tests (90-100% of test tasks) - 30 points

Correct answer for 24 - 26 tests (80 -90% of test tasks) - 20 points

Correct answer for 21 - 23 tests (70-80% of test tasks) - 10 points

20 or less correct tests (less than 70% of test tasks) - 0 points

Each structured clinical task contains 3 questions. The answer to each question is a maximum of 5 points. The

correct but not complete answer is 4 points. The answer, which contains minor errors, is rated at 3 points. False answer - 0 points.

A maximum of 15 points can be obtained for a single task. For solving 2 problems - 30 points.

The practical part

Assessment of practical skills at the bedside is as follows:

Excellent flawless performance of each skill is rated at 10 points, good performance (student admits inaccuracy in the performance of the skill, but corrects it) - 8 points, satisfactory performance (student makes some minor mistakes) - 6 points, unsatisfactory, ie incorrect or with gross mistakes, skill achievement is rated 0 points.

Assessment of physical development. If the student provided a complete and correct assessment of the child's physical development, the achievement of the skill is estimated at 10 points. If a student has made some inaccuracies in determining the assessment of a child's physical development but is able to correct them independently, he / she will receive 8 points. If a student makes some mistakes but generally demonstrates an understanding of the principles of physical development assessment, he / she receives 6 points. In case of gross mistakes the student is awarded 0 points.

Assessment of psychomotor development. A student who fully and correctly assesses the psychomotor development of the child receives 10 points. If a student has made some inaccuracies in assessing a child's psychomotor development but is able to correct them independently, he / she will receive 8 points. If a student makes some mistakes, but generally demonstrates an understanding of the principles of assessment of psychomotor development of a young child, gets 6 points. In case of gross mistakes the student is awarded 0 points.

Solving the problem of feeding young children.

A student who correctly recognizes the proper nutrition of a young child receives 10 points. If a student allows some inaccuracies in determining the menu of a young child, he / she receives 8 points. If there are some minor mistakes in determining the menu of a young child, the student receives 6 points. If a student makes a mistake and assigns a child a wrong age, he / she receives 0 points.

The maximum number of points that a student can receive during the final examination is **120** points.

Final control is considered to be enrolled if the student has scored at least **60** points (not less than **30** points for practical tasks and at least 30 points for the theoretical part of the final control).

The **evaluation of the discipline** is carried out on a 200-point scale, the evaluation of the discipline is the sum of the points for the current activity and the final control (the maximum evaluation is 200 points, the minimum is 111 points).

Conversion of the number of points from the discipline into grades according to ECTS scale

Mark in points	National scale mark	ECTS mark	Explanation
170-200	Excellent	A	Excellent (perfect fulfillment with minor unimportant mistakes)
155-169	Good	B	Very good (above an average level with a few mistakes)
140-154		C	Good (in general correct fulfillment with several unimportant mistakes)
125-139	Satisfactory	D	Satisfactory (not bad but with significant mistakes)
111-124		E	Enough (fulfillment satisfies minimal needed criteria)
60-110	Unsatisfactory	FX	Unsatisfactory (with possibility of the repeated trial)

1-59		F	Unsatisfactory (without possibility of the repeated trial)
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Conversion of points into traditional mark

Mark in points	Traditional mark
170 - 200	5
140 - 169	4
139 -111	3
≤110	2

11. Methodical supply

- Working program on study discipline “Propaedeutics of pediatrics including nursing practice, basic medical skills at the pediatric department”
- Methodical guidelines for students independent work in preparation for the practical class
- Methodical guidelines for students self preparation during learning topics not included into the auditory classes plan
- Methodical recommendations for lections
- Working textbooks (preparation for the practical classes)
- Tests (of different kind), situational tasks, tasks for the practical skills.

12. Recommended literature

1. Nelson Textbook of Pediatrics, 21th Edition, 2019 by ROBERT M.KLIEGMAN, NATHAN J. BLUM, SAMIR S. SHAH, JOSEPH W. ST GEME III, ROBERT C. TASKER, KAREN M. WILSON, RICHARD E. BEHRMAN, P.
4. KatilovAV, Dmitriev DV, Dmitrieva KY, Makarov S.Yu. Clinical examination of the child - 2 nd ed. - Vinnitsa: New Book, 2019. - 520 p. cтrop. 116-170.

- Global strategy for infant and young child feeding. WHO, 2020.
- O.M. Kovaleva, et al. Care for the sick child.-K : Medicine. - 2010.
- T. Kyle. Maternity and Pediatric Nursing, 3rd edition. Lippincott Williams & Wilkins. – 2017.
- N. Burton. Clinical Skills for OSCEs, 5th edition. - Scion Publishing Ltd. 2015. – 344 p.
- Nelson Texbook of Pediatrics. 20th edition. – V(1,2). – 2016. – P.5315.

13. Information resources

1. Ten steps to successful breastfeeding (revised 2018).
<https://www.who.int/nutrition/bfhi/ten-steps/en/>
2. The WHO Child Growth Standards <https://www.who.int/childgrowth/en/>
3. Global strategy for infant and young child feeding World Health Organization, UNICEF
<https://www.who.int/nutrition/publications/infantfeeding/9241562218/en/>