MINISTRY OF HEALTH OF UKRAINE
BUKOVINA STATE MEDICAL UNIVERSITY

"I APPROVE"
Vice-rector of a higher education institution
on scientific and pedagogical work
Associate Professor _____ V.M. Khodorovsky
"29" _____ August _____ 2024

STUDENT GUIDE
(SYLLABUS)
for the study of the academic discipline
"PROPAEDEUTIC PEDIATRICS"

Area of expertise _____ 22 Healthcare_____
(code and name of field of knowledge)

Specialty _____ 222 Medicine_____
(code and name of specialty)

Educational degree __-_____ Master_____
(Master, Bachelor, Associate)

Course of study _____ 3_____

Form of study ____ _____ full-time_____
(full-time, part-time, distance learning)

Department of _____ Pediatrics, Neonatology and Perinatal Medicine_____
(name of department)

Approved at the methodological meeting of the Department of Pediatrics, Neonatology and Perinatal Medicine on August 29, 2024 (protocol No. 1).

Head of the Department _____ (Y.M. Nechytaylo)
(signature)

Approved by the subject methodological commission for pediatric disciplines, obstetrics and gynecology on August 29, 2024 (protocol No. 6).

Head of subject methodical department commission _____ (O.V. Kravchenko)
(signature)

Chernivtsi – 2024

1. GENERAL INFORMATION ABOUT SCIENTIFIC AND EDUCATIONAL STAFF WHO TEACH THE DISCIPLINE

Chair	pediatrics, neonatology and perinatal medicine
Surname, first name, patronymic of scientific and pedagogical workers, position, academic degree, academic title, e-mail	Nechitailo Yuriy Mykolayovych, Head of the Department of Pediatrics, Neonatology and Perinatal Medicine, Doctor of Medical Sciences, Professor, nechitailo . yuri @ bsmu . edu . ua ; Bezruk Volodymyr Volodymyrovych, Professor of the Department of Pediatrics, Neonatology and Perinatal Medicine, Doctor of Medical Sciences, Professor, bezruk @bsmu.edu.ua ; Kovtyuk Natalia Ivanivna, Professor of the Department of Pediatrics, Neonatology and Perinatal Medicine, Doctor of Medical Sciences, Professor, kovtiuk.natalia@bsmu.edu.ua ; Buryak Oleksandr Grigorovich, Associate Professor of the Department of Pediatrics, Neonatology and Perinatal Medicine, Candidate of Medical Sciences, Associate Professor, burjak.oleksandr@bsmu.edu.ua ; Oleksiy Serhiyovych Godovanets, Associate Professor of the Department of Pediatrics, Neonatology and Perinatal Medicine, Candidate of Medical Sciences, Associate Professor, godovanec.oleksij@bsmu.edu.ua ; Popeliuk Natalia Oleksandrivna, Associate Professor of the Department of Pediatrics, Neonatology and Perinatal Medicine, Candidate of Medical Sciences, Associate Professor, popeliuk@bsmu.edu.ua ; Seman-Minko Inna Stepanivna, Assistant Professor of the Department of Pediatrics, Neonatology and Perinatal Medicine, seman-minko@ukr.net.
Department webpage on the official university website	https://www.bsmu.edu.ua/pediatriyi-neonatologiyi-ta-perinatalnoyi-meditsini/
Department website	https://propped.bsmu.edu.ua/
Email	prop_pediatry@bsmu.edu.ua
Address	Chernivtsi, Bukovynska St., 4
Contact phone number	+38 (0372) 53-05-27

2. GENERAL INFORMATION ABOUT THE ACADEMIC DISCIPLINE

Discipline status	normative
Number of credits	5
Total hours	150
Lectures	30
Practical classes	70
Independent work	50
Type of final control	final module control

3. DESCRIPTION OF THE ACADEMIC DISCIPLINE (ABSTRACT)

Propaedeutic pediatrics is a branch of pediatrics. Propaedeutic (*introduction*) pediatrics studies the basic patterns of development and age-related features of functions. children's organism (including physical and psychomotor development of children of different ages); provides basic skills in clinical examination and instrumental research of various organs and systems in healthy and sick children; skills in organizing rational nutrition for children.

4. ACADEMIC DISCIPLINE POLICY

4.1. List of regulatory documents:

- Regulations on the Organization of the Educational Process (https://www.bsmu.edu.ua/wp-content/uploads/2020/03/polozhennya-pro-organizacziyu-osvitnogo-proczesu-u-vdnzu-bukovinskij-derzhavnij-medichnij-universitet.pdf);
- Instructions for evaluating the academic performance of BSMU students in the context of the implementation of the European Credit Transfer System for the organization of the educational process (https://www.bsmu.edu.ua/wp-content/uploads/2020/03/bdmu-instrukcziya-shhodo-oczinyuvannya-%D1%94kts-2014-3.pdf);
- Regulations on the procedure for making up missed and uncredited classes (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/reworks.pdf);
- Regulations on the appeal of the results of the final knowledge control of higher education applicants (https://www.bsmu.edu.ua/wp-content/uploads/2020/07/polozhennya-pro-apelyacziyu-rezultativ-pidsumkovogo-kontrolyu-znan.pdf);
- Code of Academic Integrity (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/kodeks_academic_faith.pdf);
- Moral and ethical code of students (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/ethics_code.docx);
- Regulations on the Prevention and Detection of Academic Plagiarism (https://www.bsmu.edu.ua/wp-content/uploads/2019/12/antiplagiat-1.pdf);
- Regulations on the procedure and conditions for students to choose elective disciplines (https://www.bsmu.edu.ua/wp-content/uploads/2020/04/nakaz_polozhennyz_vybirkovi_dyscypliny_2020.pdf);
- Internal Labor Regulations of the Higher State Educational Institution of Ukraine "Bukovyna State Medical University" (https://www.bsmu.edu.ua/wp-content/uploads/2020/03/17.1-bdmu-kolektivnij-dogovir-dodatok.doc);
- DECREE OF THE PRESIDENT OF UKRAINE No. 722/2019 of September 30, 2019 " On the Sustainable Development Goals of Ukraine for the period until 2030" - https://www.president.gov.ua/documents/7222019-29825

4.2. Policy on compliance with the principles of academic integrity of higher education applicants:

- independent completion of learning tasks for current and final controls without using external sources of information;
- Cheating during knowledge testing is prohibited;
- independent completion of individual tasks and correct citation of sources of information when borrowing ideas, statements, and information.

4.3. Policy on compliance with the principles and norms of ethics and deontology by higher education students:

- actions in professional and educational situations from the standpoint of academic integrity and professional ethics and deontology;
- ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all;
- ensuring gender equality, empowering all women and girls;
- reducing inequality ;
- compliance with the university's internal regulations, being tolerant, friendly and considerate in communicating with students and teachers, and medical staff of healthcare institutions;
- awareness of the significance of examples of human behavior in accordance with the norms of academic integrity and medical ethics.

4.4. Policy on class attendance by higher education applicants:

- Attendance at all classes (lectures, practical (seminar) classes, final module control) is mandatory for the purpose of ongoing and final assessment of knowledge (except for cases of good reason).

4.5. Deadline policy and making up for missed or uncredited classes by higher education students:

- Making up for missed classes takes place according to the schedule for making up for missed or uncredited classes and consultations.

5. PREREQUISITES AND POSTREQUISITES OF AN ACADEMIC DISCIPLINE (INTERDISCIPLINARY CONNECTIONS)

List of academic disciplines on which the study of the academic discipline is based	List of academic disciplines for which the foundation is laid as a result of studying the academic discipline
Human anatomy.	Pediatrics
Histology.	Neonatology
Physiology.	Pediatrics and childhood infections
Biochemistry.	
Medical physics.	
Pathological anatomy.	
Pathological physiology.	
Patient care.	

6. PURPOSE AND OBJECTIVES OF THE ACADEMIC DISCIPLINE:

6.1. The purpose of teaching the academic discipline is to form the initial level of knowledge of students, necessary for the successful study of further disciplines, it is a basic discipline for the block of pediatric clinical disciplines that provide professional and practical training of specialists in the specialty (direction) 222 "Medicine" , field of knowledge 22 "Healthcare".

6.2. Task: master conducting subjective and objective examination of the patient (examination, palpation, percussion, auscultation of organs and systems of children of different age groups); drawing up a plan for additional examination for various diseases; evaluating the results of research (laboratory and instrumental); assessing the patient's health; knowing the current orders of the Ministry of Health of Ukraine; age-related average values of the results of the main laboratory and instrumental research methods; leading pathological symptoms and syndromes in the most common diseases of childhood; age-related average values of indicators of physical and neuropsychic development of children of different age groups and principles of rational feeding and nutrition of healthy children of different ages; moral and deontological principles of a medical specialist and principles of professional subordination in the clinic of children's diseases; rules for organizing the regime and care for healthy and sick children; a list of necessary medical manipulations, age-related anatomical and physiological features of the child's body ; complying with the rules of occupational safety and health in the industry.

7. COMPETENCES, THE FORMATION OF WHICH THE EDUCATIONAL DISCIPLINE CONTRIBUTES:

7.1. integral :

the ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the process of learning, which involves conducting research and/or implementing innovations and is characterized by the complexity and uncertainty of conditions and requirements.

7.2. general :

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

7.3. special (professional, subject-specific):

FC1 - Ability to collect medical information about the patient and analyze clinical data.
FC3 - Ability to establish a preliminary and clinical diagnosis of the disease.
FC5 - Ability to determine the nature of nutrition in the treatment and prevention of diseases.
FC10 - Ability to perform medical manipulations.

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7.4.program learning outcomes:

PRN4 – To identify and identify the leading clinical symptoms and syndromes (according to list 1); using standard methods, using preliminary data from the patient's history, patient examination data, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease (according to list 2).
PRN5 – Collect complaints, life and disease history, assess the patient's psychomotor and physical development, the condition of organs and body systems, and based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis (according to list 4), taking into account the patient's age.
PRN7 – Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) of patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).
PRN17 – Perform medical manipulations (according to list 5) in a medical institution, at home or at work based on a preliminary clinical diagnosis and/or indicators of the patient's condition by making an informed decision, adhering to relevant ethical and legal norms **.**

8. LEARNING RESULTS.

As a result of studying the academic discipline, the applicant must:

8.1. Know:

- age-average values of the results of the main laboratory and instrumental research methods,
- leading pathological symptoms and syndromes in the most common childhood diseases,
- age-related average values of indicators of physical and neuropsychic development of children of different age groups and principles of rational feeding and nutrition of healthy children of different ages,
- moral and deontological principles of a medical specialist and principles of professional subordination in the clinic of children's diseases,
- rules for organizing the regimen and care for healthy and sick children; a list of necessary medical procedures,
- age-related anatomical and physiological features of the child's body,
- The methodology of questioning and physical examination of a child in a pediatric clinic .

8.2. Be able to:

- analyze the results of basic laboratory and instrumental research methods,
- to identify the leading pathological symptoms and syndromes in the most common childhood diseases,
- determine the physical and neuropsychological development of children of different age groups and use the principles of rational feeding and nutrition of healthy children of different ages,

- demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination in the pediatric clinic,
- demonstrate skills in organizing the regimen and care for healthy and sick children, perform the necessary medical manipulations,
- interpret and take into account in clinical practice the age-related anatomical and physiological characteristics of the child's body,
- Conduct a survey and physical examination of the child and analyze their results in the pediatric clinic .

8.3. Demonstrate:

- the ability to assess a child's psychomotor and physical development;
- the ability to prepare meals for healthy children of different ages;
- interpret the results of clinical examination, laboratory and instrumental
- studies in children in normal and pathological conditions
- ability to maintain medical records.

8.4. Possess the skills:

- examination techniques (examination, palpation, percussion, auscultation) of organs and systems of children of different ages;
- interpret the results of laboratory and instrumental studies in children in normal and pathological conditions;
- drawing up a diet for healthy children of different ages;
- independently to identify the leading clinical symptom or syndrome by making an informed decision, using previous patient history data, physical examination data of the child, knowledge about the person, their organs and systems, adhering to relevant ethical and legal norms.

9. INFORMATIONAL CONTENT OF THE ACADEMIC DISCIPLINE

150 hours (5 ECTS credits) are allocated for studying the academic discipline - (the content of the discipline is structured into 2 modules and 17 content modules) .

PROGRAM CONTENT MODULE 1
"CHILD DEVELOPMENT AND CHILD NUTRITION"

Content module 1. Pediatrics as the science of healthy and sick children.

Specific objectives:

• Know the place of pediatric propaedeutics in the system of general medicine.
• Know the principles of organizing medical and preventive care for children.
• Know the rules of sanitary-hygienic and anti-epidemic regimes in children's medical and preventive institutions.
• Interpret child health criteria.
• Analyze the main statistical indicators of the activities of medical and preventive institutions.
• Interpret the historical stages of the development of pediatrics in Ukraine.
• Analyze the characteristics of different periods of childhood.

Topic 1. The subject ***and place of pediatrics, the main stages of development . Organization medical and preventive care children in Ukraine.***

Pediatrics as a science about healthy and sick children, its place in the system of general medicine. The importance of pediatrics for the training of a doctor. Objectives of the course on propaedeutic pediatrics. The main historical stages of the development of pediatrics in Ukraine.

Principles of organization and methods of medical and preventive care for children in Ukraine. Structure of children's medical and preventive institutions, features of the organization of their work. Organization of sanitary and hygienic and anti-epidemic regimes. Hospitalization of patients in a children's hospital and the specifics of the work of children's departments. Dispensary observation and rehabilitation of children in a polyclinic. Scope and forms of work of a pediatrician, family doctor. Sanitary and educational work in pediatric practice. The concept of children's health, criteria for its assessment and

health groups. Main statistical indicators of the activities of children's medical and preventive institutions (infant mortality, lethality, etc.). Ethics and deontology in clinical pediatrics.

Content module 2. Periods of childhood .

Specific objectives:

Collect medical and life history

• Evaluate the peculiarities of the course of childhood periods in children
• Assess the child's general condition
• Make a conclusion about the condition of the newborn baby
• Interpret the detected changes in a newborn child based on knowledge of anatomical and physiological features.
• Assess the features of the course of the childhood period in children

Topic 2. ***Periods of childhood .***

Periods of childhood . Their characteristics. Features and methods of collecting anamnesis in children. Methods of clinical objective examination of healthy and sick children. General examination of healthy and sick children. Criteria for assessing the general condition of sick children. Specifics of the examination of seriously ill children with a limited life expectancy. Features of the use of moral and deontological principles in the context of an incurable disease .

Topic 3. ***Features of the neonatal period.*** Newborn child. Physiological and transitional states in the neonatal period. The concept of the maturity of the newborn. Signs of prematurity. Primary toilet and patronage of the newborn. Care for the newborn. Features of the newborn examination method. Sanitary and hygienic regime of newborn departments.

Content module 3. Physical and psychomotor development of children.

Specific objectives:

• Measure the child's basic body parameters (weight, height, head, chest, hip, lower leg, shoulder circumference).
• Calculate anthropometric indices.
• Calculate appropriate indicators of physical development using percentile tables.
• Evaluate physical development based on the data obtained.
• Evaluate the main criteria and indicators of psychomotor development of children of different ages.
• Explain the features of children's psychomotor development.
• Assess the psychomotor development of a child in their first year of life by month.
• Assess the psychomotor development of children of early, preschool, primary and secondary school age.
• Identify factors in the history that influence changes in psychomotor development.

Topic 4. ***Physical development of children and anthropometry.*** The concept of physical development, its assessment, the significance of changes in a child's body parameters, as a methodology for ensuring a healthy lifestyle and promoting well-being for all at any age . Anthropometry.

Topic 5. ***Assessment of children's physical development.***

Methods of assessing children's physical development. Semiotics of disorders of children's physical development. Physical education.

Topic 6. ***Psychomotor development of children.***

The concept of psychomotor development of children, its features in different periods of childhood. Daily routine for children of different ages. Types of higher nervous activity and phase states in children and their significance for education.

Topic 7. ***Assessment of children's psychomotor development.*** Features of assessing children's neuropsychiatric development. Semiotics of neuropsychiatric development disorders. Elements of psychoemotional education of early childhood children (development of cognitive functions, emotions, aesthetic, moral, etc.).

Content module 4. Natural feeding of infants. Main features of metabolism in childhood.

Specific objectives:

1. Know the main features of metabolism in childhood.
2. Know the features of energy expenditure in children, their caloric needs depending on the child's age .
3. Know the main features of thermogenesis and thermoregulation in children.

4. Evaluate the child's daily diet and correct it (if necessary).
5. To become familiar with diseases and metabolic syndromes in children.
6. Collect and evaluate the infant's feeding history.
7. Calculate the daily amount of food a child needs, depending on age.
8. Calculate the required amount of food per feeding, depending on the age of the baby.
9. Make a one-day menu for a breastfed infant.

Topic 8. ***Features of metabolism in childhood. Natural feeding of infants.***

Main features of metabolism in childhood. Features of energy expenditure in children, their caloric needs. Thermogenesis and thermoregulation. Diseases and syndromes of metabolic disorders in children.

Advantages of natural feeding of infants. The importance of breastfeeding for the health of the child and mother. Natural feeding of infants as a way to overcome hunger, achieve food security, improve the nutrition of an early age child. Quantitative and qualitative composition of breast milk. Immunobiological role of breast milk. Difficulties in breastfeeding. Prevention of hypogalactia and mastitis. Mode and nutrition of a nursing woman. The child's need for proteins, fats, carbohydrates and calories. Methods for calculating the daily volume of food and diet. Rules and techniques of breastfeeding.

Topic 9. ***Natural feeding of infants after the introduction of complementary foods.***

Complementary feeding and nutrition correction. Types of complementary feeding, rules and techniques for its introduction. The child's need for proteins, fats, carbohydrates, minerals, and fluids.

Content module 5. Artificial feeding of infants.

Specific objectives:

1. Explain the definition of artificial feeding of infants, the classification of milk formulas.
2. Collect and evaluate the infant's feeding history.
3. Calculate the daily amount of food for a bottle-fed child depending on age.
4. Make a one-day menu for an infant who is formula-fed.
5. Organize proper artificial feeding and assess its effectiveness.
6. Correct the diet of a child who is formula-fed.

Topic 10. ***Artificial feeding of infants. Artificial feeding of infants after the introduction of complementary foods.***

Definition of the concept of artificial feeding of infants. Classification and characteristics of milk formulas for artificial feeding of infants. Technique of artificial feeding and criteria for assessing its effectiveness. Daily need of a child in proteins, fats, carbohydrates and calories during artificial feeding. Complementary feeding and correction of nutrition during artificial feeding.

Content module 6. Mixed feeding of infants.

Specific objectives:

1. Explain the definition of mixed feeding of infants.
2. Collect and evaluate the breastfeeding history of the infant, prevent the progression of hypogalactia in the mother.
3. Calculate the daily volume of food and the required amount of food per feeding for a child who is on mixed feeding, depending on age.
4. Make a one-day menu for an infant who is on mixed feeding.
5. Organize proper mixed feeding and interpret its effectiveness.
6. Adjust the nutrition of a child who is on mixed feeding.

Topic 11. ***Mixed feeding of infants.***

Technique and rules of complementary feeding. Milk formulas used for complementary feeding. Scheme of mixed feeding of children of the first year of life. Complementary feeding and correction of nutrition. The child's need for proteins, fats, carbohydrates and calories during mixed feeding .

Content module 7. Nutrition for children over one year old.

Specific objectives:

1. Collect a nutritional history of a child over one year old.
2. Assess the compliance of nutrition with the necessary needs for the full physical and psychomotor development of the child.

3. Create a one-day menu for a healthy child over one year old, taking into account the needs for food ingredients.
4. Adjust the diet of a child over one year old.
5. Create a one-day menu for a healthy school-age child and teenager, taking into account the needs for food ingredients.
6. Adjust the nutrition of school-age children and adolescents.
7. Be able to prescribe a therapeutic diet (dietary table) depending on the presence of pathology in the examined children.

Topic 12. ***Organization and principles of rational nutrition for children of different age groups over one year old. Organization and principles of therapeutic nutrition for children.***

Organization and principles of rational nutrition of healthy children of early childhood and preschool age. Assessment of adequacy and balance of nutrition. Organization and principles of therapeutic nutrition.

PROGRAM CONTENT MODULE 2.
" ANATOMIC AND PHYSIOLOGICAL FEATURES, EXAMINATION METHODS AND SEMIOTICS OF DISEASES IN CHILDREN "

Content module 8. Nervous system in children.

Specific objectives:

1. Know the anatomical and morphological features of the nervous system in children of different ages.
2. Be able to select data from the anamnesis that reflect the presence of a child with damage to the central and peripheral nervous system.
3. Be able to investigate and assess the state of the nervous system in children of different ages.
4. Interpret the most informative signs of nervous system damage during objective and laboratory examination of the patient.

Topic 13-14. ***Anatomical and physiological features, methodology, semiotics of nervous system lesions in children.***

Anatomical and physiological features of the nervous system in children. Embryogenesis disorders as the basis of congenital anomalies of the nervous system. Methods of clinical neurological examination of children. Semiotics of the main diseases of the nervous system in children (hydrocephalus, meningitis, encephalitis, cerebral palsy, etc.). Features of cerebrospinal fluid in children and semiotics of its changes in pathology (in purulent and serous meningitis, hydrocephalus, etc.) Care for children with pathology of the nervous system.

Content module 9. Skin, subcutaneous tissue and musculoskeletal system in children.

Specific objectives:

1. Conduct an objective examination of the skin and subcutaneous tissue, taking into account the peculiarities of the examination technique in children.
2. Collect a medical history and conduct an objective examination of the musculoskeletal system in children.
3. Assign a set of additional examination methods to determine the condition of the musculoskeletal system in children.
4. Interpret the obtained research data taking into account the anatomical and physiological characteristics of the child's body.
5. Conduct syndromic diagnostics of children with skin and bone system pathologies.

Topic 15. ***Anatomical and physiological features, methodology, semiotics of the skin and subcutaneous tissue in children*** .

Morphological and functional features of the skin and its derivatives in children. Features of the structure of the subcutaneous tissue. General semiotics of its main changes. Semiotics of skin diseases and lesions of the subcutaneous tissue.

Topic 16. ***Anatomical and physiological features, methodology, semiotics of the musculoskeletal system in children*** .

Anatomical and physiological features of the skeletal and muscular systems in children. Methods of studying the skeletal and muscular systems. Semiotics of lesions and diseases of the skeletal and muscular systems.

Topic 17. ***Additional methods of examining the skin, subcutaneous tissue, and musculoskeletal system in children.***

Additional (instrumental) methods of examining the skin, subcutaneous tissue, and musculoskeletal system in children.

Content module 10. Respiratory system in children.

Specific objectives:

1. Collect a medical history from a patient with a respiratory disease.
2. Conduct an objective examination of the respiratory system, taking into account the age characteristics of the child.
3. Interpret the obtained research data.
4. Analyze the main syndromes of respiratory tract damage.
5. To prescribe a complex of laboratory and instrumental examination methods for respiratory diseases.

Topic 18. ***Anatomical and physiological features, methods of studying the respiratory system in children. Additional functional and instrumental methods of studying breathing in children.***

Features of embryogenesis of the respiratory organs and anomalies of their development. Anatomical and physiological features of the respiratory system in children. Methods of clinical examination of the respiratory organs in children. Additional functional and instrumental methods of studying respiration in children.

Topic 19. ***Lung percussion in children. Lung auscultation in children. Semiotics of respiratory diseases.***

Topographic and comparative percussion of the lungs in children. Semiotics of disorders. Comparative auscultation of the lungs. Vesicular, puerile, hard breathing. Semiotics of lesions and basic diseases of the respiratory system in children. Syndromes of respiratory disorders and respiratory failure, basic clinical manifestations.

Content module 11. Cardiovascular system in children.

Specific objectives:

1. Collect a medical history from a patient with a cardiovascular disease.
2. Conduct an objective examination of the cardiovascular system, taking into account the age characteristics of the child.
3. Interpret the obtained research data.
4. Analyze the main syndromes of damage to the cardiovascular system in children.
5. To prescribe a complex of laboratory and instrumental examination methods for diseases of the cardiovascular system in children.

Topic 20. ***Anatomical and physiological features, methods of studying the cardiovascular system in children. Additional functional and instrumental methods of studying breathing in children.***

Embryogenesis of the cardiovascular system and congenital anomalies of the heart and blood vessels. Features of blood circulation in the fetal period. Anatomical and physiological features of the heart and blood vessels in childhood. Methods of examination and palpation of the cardiovascular system in children. Features of ECG and FCG in healthy children of different ages. Echocardiography.

Topic 21. ***Heart percussion in children. Heart auscultation in children. Semiotics of cardiovascular diseases.***

Percussion of absolute and relative boundaries of the heart in children, semiotics of disorders. Semiotics of lesions and main diseases of the cardiovascular system in children. Rules of auscultation of the heart in children. Heart sounds. Main clinical signs of lesions of the cardiovascular system in children (cyanosis, bradycardia, tachycardia, etc.). Semiotics of congenital and acquired diseases of the heart and blood vessels in children.

Content module 12. Digestive system in children.

Specific objectives:

1. Collect a medical history from a patient with a digestive system disease.
2. Conduct an objective examination of the child's digestive system.

3. Interpret the obtained research data.
4. Analyze the main syndromes of damage to the digestive system in children.
5. To prescribe laboratory and instrumental methods for examining the digestive system in children.

Topic 22. ***Anatomical and physiological features of the digestive system organs, research methodology*** .

Age-related anatomical and physiological features of the digestive system in children. Methods of clinical examination of the digestive organs (examination, palpation, percussion, auscultation).

Topic 23. ***Semiotics of digestive tract lesions in children. Abdominal syndrome.***

The main diseases of the digestive system in children (pylorospasm, pyloric stenosis, gastritis, peptic ulcer, cholecystitis, biliary dyskinesia, etc.) in children. Additional methods (ultrasound, endoscopy, thermography). Acute abdomen syndrome.

Content module 13. Urinary system in children.

Specific objectives:

1. Conduct a subjective and objective examination of a sick child and interpret the condition of the urinary organs.
2. To prescribe the necessary set of diagnostic measures for a patient with pathology of the excretory system.
3. Interpret the changes detected as a result of the child's examination.

Topic 24-25. ***Anatomical and physiological features of the excretory system organs, research methodology, semiotics of lesions, additional methods of researching the excretory system in children.***

Anatomical and physiological features of the urinary system in childhood. Brief information on the embryogenesis of the urinary system as the basis of congenital anomalies. Examination methods and semiotics of the most common diseases of the urinary system in children. Semiotics of microscopic changes in urinary sediment (protein, erythrocyte, leukocyte, and cylindruria, etc.). Acute and chronic renal failure syndrome. Additional methods of studying the excretory system in children.

Content module 14. Endocrine system in children.

Specific goals: 1. To conduct a subjective and objective examination of the endocrine system organs, taking into account the specifics of the methodology in children.
2. To prescribe the necessary set of diagnostic measures for a patient with endocrine system pathology to clarify pathological changes.
3. Interpret the changes detected as a result of the examination of the child based on knowledge of anatomical and physiological features.
4. Form a complex syndromic diagnosis.

Topic 26-27 . ***Anatomical and physiological features of the endocrine system organs, research methods, semiotics of lesions, additional methods of researching the endocrine system in children.***

Anatomical and physiological features of the endocrine system in children. Semiotics of syndromes of hyper- and hypofunction of individual endocrine glands and diseases of the endocrine system in children. Additional methods of research of the endocrine system in children.

Content module 15. Immune system and blood system in children.

Specific objectives:

1. Collect a medical history and identify data indicating changes in the child's immune system and blood system.
2. Conduct an objective examination of the immune system and blood system, taking into account age-related characteristics .
3. Distinguish clinical signs of immunodeficiency states, anemia, identify leading syndromes.
4. Interpret the results of laboratory and instrumental research methods.

Topic 28. ***Anatomical and physiological features of the immune system, research methodology, semiotics of lesions*** .

Immune system and features of its functioning in children. Concept of immunodeficiencies, classification and semiotics of immunodeficiency states. Clinical and immunological semiotics of HIV infection in children.

Topic 29. ***Anatomical and physiological features of the blood system, research methods, semiotics of lesions.***

Features of the blood system in children of different age groups. Methods of clinical and laboratory examination of children with blood system lesions. Clinical and hematological semiotics of the main syndromes (anemic, hemolytic, hemorrhagic, etc.) and diseases of the blood system in children.

Content module 16. Metabolism in children.

Specific objectives:

1. Explain the features of energy, protein, carbohydrate, lipid, water, mineral, and acid-base metabolism in children.
2. Conduct subjective and objective examinations in children with metabolic disorders.
3. Recognize clinical manifestations of disorders of the above metabolisms, anemia, identify leading syndromes.
4. Interpret the results of laboratory and instrumental research methods.

Topic 30. ***Energy metabolism in children.***

Patterns of age-related changes in energy metabolism in children. Features of neuroendocrine regulation of metabolic processes in children. General ideas about metabolic diseases. Heat balance of the child's body. Features of thermogenesis and thermoregulation in childhood. Semiotics of hypo- and hyperthermia in children of different ages.

Topic 31. ***Protein metabolism in children.***

Features of protein metabolism and semiotics of its disorders in children.

Topic 32. ***Carbohydrate metabolism in children.***

Features of carbohydrate metabolism and semiotics of its disorders in children.

Topic 33. ***Lipid metabolism in children.***

Features of lipid metabolism and semiotics of its disorders in children.

Topic 34. ***Water-electrolyte and acid-base metabolism in children*** .

Age-related features of water and mineral metabolism and acid-base status of the body in children. Violations of water and mineral metabolism and clinical manifestations.

Topic 35. ***Vitamins, their importance for child development.***

The importance of vitamins for metabolic processes in the child's body. Semiotics of hypo- and hypervitaminosis in children.

Content module 17. Writing a medical history.

Specific objectives:

1. Conduct a subjective and objective examination of the child.
2. Distinguish clinical syndromes.
3. Establish a syndromic diagnosis.
4. Interpret the results of laboratory and instrumental research methods.

Topic 36. ***Writing a medical history*** .

10. STRUCTURE OF THE ACADEMIC DISCIPLINE

Topics	Lectures	Practical	CRC	IDSR
Content module 1. Pediatrics as the science of a healthy and sick child				**The module does not provide**
Topic 1. The subject and place of pediatrics, the main stages of development. Organization of medical and preventive care for children in Ukraine.	**1**	**2**	**2**	
Content module 2. Periods of childhood.				

Topic 2. Periods of childhood. General examination of healthy and sick children. Criteria for assessing the general condition of sick children. Specifics of the examination of seriously ill children with a limited life expectancy. Features of the use of moral and deontological principles in the context of an incurable disease . **Topic 3.** Features of the period newborns.	**1**	**4**	**2**	
Content module 3. Physical and psychomotor development of children.				
Topic 4. Physical development of children and anthropometry. **Topic 5. Assessment of** children 's physical development. **Topic 6.** Psychomotor development of children. **Topic 7.** Assessment of children's psychomotor development.	**4**	**8**	**2**	
Content module 4. Natural feeding of infants. Main features of metabolism in childhood				
Topic 8. Features of metabolism in childhood. Natural feeding of infants. **Topic 9.** Natural feeding of infants after the introduction of complementary foods. Features of nutritional correction.	**4**	**4**	**2**	
Content module 5. Artificial feeding of infants.				
Topic 10. Artificial feeding of infants. Artificial feeding of infants after the introduction of complementary foods.	**1**	**2**	**2**	
Content module 6. Mixed feeding of infants.				
Topic 11. Mixed feeding of infants.	**1**	**2**	**2**	
Content module 7. Feeding children over one year old.				
Topic 12. Organization and principles of rational nutrition for children of different age groups over one year old. Organization and principles of therapeutic nutrition in children.	**2**	**2**	**2**	
FINAL MODULAR CONTROL	**-**	**4**	**2**	
Total hours – 58 **Total credits – 1.9**	**14**	**28**	**16**	
Content module 8. Nervous system in children.				– abstract
Topic 13-14. Anatomical and	**2**	**4**	**3**	report at a

physiological features, methodology, semiotics of the nervous system in children, additional research methods.				practical session; – report at clinical conferences in the departments of the clinical base of the department; – participation in the work of a student club; – conducting student research and publishing its results; – participation in discipline olympiads; – preparation of electronic materials to supplement educational databases.
Content module 9. Skin, subcutaneous tissue and musculoskeletal system in children.				
Topic 15. Anatomical and physiological features, methodology, semiotics of the skin and subcutaneous tissue in children **Topic 16.** Anatomical and physiological features, methodology, semiotics of the musculoskeletal system in children. **Topic 17.** Additional methods of examining the skin, subcutaneous tissue, and musculoskeletal system in children.	**2**	**6**	**3**	
Content module 10. Respiratory system in children.				
Topic 18. Anatomical and physiological features, methods of studying the respiratory system in children. Additional functional and instrumental methods of studying breathing in children. **Topic 19. Lung percussion in children.** Lung auscultation in children. Semiotics of respiratory diseases.	**2**	**4**	**3**	
Content module 11. Cardiovascular system in children.				
Topic 20. Anatomical and physiological features, methods of studying the cardiovascular system in children. Additional functional and instrumental methods of studying breathing in children. **Topic 21. Percussion of the heart in children. Auscultation of the** heart in children. Semiotics of diseases of the cardiovascular system.	**2**	**4**	**3**	
Content module 12. Digestive system in children.				
Topic 22. Anatomical and physiological features, methods of the digestive system in children. **Topic 23. Semiotics of lesions, additional methods of** examining the digestive organs in children.	**2**	**4**	**3**	
Content module 13. Excretory system in children.				
Topic 24-25. Anatomical and	**2**	**4**	**3**	

physiological features, methodology, semiotics of lesions, additional methods of studying the excretory system in children.				
Content module 14. Endocrine system in children.				
Topic 26-27. Anatomical and physiological features, methodology, semiotics of lesions, additional methods of researching the endocrine system in children.	**2**	**4**	**3**	
Content module 15. Immune system and blood system in children.				
Topic 28. Anatomical and physiological features, methodology, semiotics of the immune system in children. **Topic 29.** Anatomical and physiological features, methodology, semiotics of the blood system in children.	**2**	**4**	**3**	
Content module 16. Metabolism in children.				
Topic 30. Energy metabolism in children. **Topic 31.** Protein metabolism in children. **Topic 32.** Carbohydrate metabolism in children. **Topic 33.** Lipid metabolism in children. **Topic 34.** Water-electrolyte and acid-base metabolism in children. **Topic 35. Vitamins,** their importance for child development.	**-**	**-**	**4**	
Content module 17. Writing a medical history.				
Topic 36. Writing and defending a medical history.		**4**	**3**	
FINAL MODULAR CONTROL	**-**	**4**	**3**	
Total hours – 92 **Total credits – 3.1**	**16**	**42**	**34**	
TOTAL HOURS	**30**	**70**	**50**	

11. THEMATIC LECTURE PLAN

No.	TOPIC	Number of hours
Module 1: Child Development and Pediatric Nutrition		
1.	Pediatrics as a science of healthy and sick children, its place in the system of general medicine. Principles of organization and methods of medical and preventive care for children in Ukraine. Periods of childhood, their characteristics and features. Newborn child. Physiological and transitional states of the neonatal period.	2

2.	Physical development of children of different age groups. Principles and methods of assessing children's development. Semiotics of disorders of children's physical development.	2
3.	Psychomotor development of children of different age groups. Principles and methods of assessing children's development. Semiotics of disorders of children's psychomotor development.	2
4.	Features of metabolism in childhood. Natural breastfeeding of infants and its advantages. The regimen and nutrition of a nursing woman. Difficulties in breastfeeding. Prevention of hypogalactia and mastitis. Rules and techniques of breastfeeding with breast milk.	2
5.	Complementary feeding and nutritional correction. The child's need for proteins, fats, carbohydrates and calories. Methods for calculating the daily volume of food and diet. Features of feeding premature newborns.	2
6.	Artificial feeding of infants. Classification and characteristics of milk formulas. Technique of artificial feeding and criteria for assessing its effectiveness. Complementary feeding and correction of nutrition during artificial feeding. Mixed feeding. Technique and rules of complementary feeding. Milk formulas used for complementary feeding.	2
7.	Organization and principles of rational nutrition for healthy children over one year old. Organization and principles of rational nutrition for school-age children and adolescents. Therapeutic nutrition.	2
	TOGETHER	**14**
Module 2: Anatomical and physiological features, research methodology and semiotics of diseases in children .		
1.	Anatomical and physiological features of the nervous system in children. Semiotics of the main diseases of the nervous system in children.	2
2.	Morphological and functional features of the skin and its derivatives in children. Features of the structure of the subcutaneous tissue. General semiotics of its main changes. Semiotics of skin diseases and lesions of the subcutaneous tissue. Anatomical and physiological features of the musculoskeletal system in children. Semiotics of lesions and diseases of the musculoskeletal system.	2
3.	AFO, methods of clinical examination of the respiratory system in children. Semiotics of lesions (cough, shortness of breath, etc.) and major respiratory diseases in children. Syndromes of respiratory disorders and respiratory failure, main clinical manifestations.	2
4.	Embryogenesis of the cardiovascular system and congenital anomalies of the heart and blood vessels. Features of blood circulation in the intrauterine period. Anatomical and physiological features of the heart and blood vessels in childhood. Clinical signs of damage to the cardiovascular system in children. Semiotics of congenital and acquired diseases of the heart and blood vessels in children. Features of ECG and FCG in healthy children of different ages.	2
5.	AFO, methods of clinical examination of the digestive organs (examination, palpation, percussion, auscultation). Semiotics of digestive organ lesions and major diseases in children. Abdominal syndrome.	2
6.	AFO, examination methods and semiotics of the most common diseases of the urinary system in children. Semiotics of microscopic changes in urinary sediment (protein, erythrocyte, leukocyte and cylindruria, etc.). Acute and chronic renal failure syndrome. Care for patients with urinary system pathology. Age-related features of water and mineral metabolism and acid-base status of the body in children. Violations of water and mineral metabolism and clinical manifestations.	2

7.	Anatomical and physiological features of the endocrine system in children. Semiotics of syndromes of hyper- and hypofunction of individual endocrine glands and diseases of the endocrine system in children. Features of neuroendocrine regulation of metabolic processes and growth in children.	2
8.	Peculiarities of the blood system in children of different age groups. Clinical and hematological semiotics of the main syndromes (anemic, hemolytic, hemorrhagic, etc.) Immune system and features of its functioning in children. Concept of immunodeficiencies, classification and semiotics of immunodeficiency states. Clinical and immunological semiotics of HIV infection in children.	2
	TOGETHER	**16**
	Number of hours in the discipline	**30**

12. THEMATIC PLAN OF PRACTICAL (SEMINAR) CLASSES

No.	TOPIC	Number of hours
	Module 1: Child Development and Pediatric Nutrition	
1.	Principles of organization and methods of medical and preventive care for children in Ukraine. Structure of children's medical and preventive institutions, features of the organization of their work.	2
2.	Periods of childhood, their characteristics and features.	2
3.	Newborn child. Physiological and transitional states of the neonatal period.	2
4.	Physical development of children	4
5.	Psychomotor development of children	4
6.	Features of metabolism in childhood. Natural feeding of infants. Quantitative and qualitative composition of breast milk. Methods for calculating the daily volume of food and diet. Complementary feeding and nutrition correction. The child's daily need for food ingredients and energy.	4
7.	Artificial feeding of infants. Classification and characteristics of milk formulas for artificial feeding of infants. Technique of artificial feeding and criteria for assessing its effectiveness. Complementary feeding and correction of nutrition during artificial feeding.	2
8.	Mixed feeding. Control weighing. Technique and rules of complementary feeding. Milk formulas used for complementary feeding. Mixed feeding schemes for children of the first year of life. Complementary feeding and nutrition correction. A child's daily need for proteins, fats, carbohydrates and calories during mixed feeding.	2
9.	Organization and principles of rational nutrition for children of different age groups over one year old. Organization and principles of therapeutic nutrition for children.	2
10.	Final modular control: practical training theoretical training	4
	TOGETHER	**28**
	Module 2: Anatomical and physiological features, research methodology and semiotics of diseases in children	
1.	AFO of the nervous system, methods of clinical neurological examination of children. Semiotics of the main diseases of the nervous system in children. Additional methods of studying the nervous system in children. Features of cerebrospinal fluid in children and semiotics of its changes in pathology (in purulent and serous meningitis, hydrocephalus, etc.). Care for children with	4

	pathology of the nervous system.	
2.	AFO, a method of studying the skin and subcutaneous tissue in children. Semiotics of skin and subcutaneous tissue lesions in children. Semiotics of skin and subcutaneous tissue lesions. AFO, a method of studying the skeletal and muscular systems. Semiotics of skeletal and muscular tissue lesions.	6
3.	AFO, methods of clinical examination of the respiratory system in children. Semiotics of lesions (cough, shortness of breath, etc.) and major respiratory diseases in children. Syndromes of respiratory disorders and respiratory failure, main clinical manifestations.	4
4.	AFO, methods of examination, palpation, percussion and auscultation of the cardiovascular system in children. Main signs of damage to the cardiovascular system in children (cyanosis, bradycardia, tachycardia, etc.). Semiotics of congenital and acquired diseases of the heart and blood vessels in children. Electrocardiography, phonocardiography, echocardiography.	4
5.	AFO, methods of clinical examination of the digestive organs (examination, palpation, percussion, auscultation). Semiotics of digestive organ lesions and major diseases in children. Abdominal syndrome.	4
6.	AFO, examination methods and semiotics of the most common diseases of the urinary system in children. Semiotics of microscopic changes in urinary sediment (protein, erythrocyte, leukocyte and cylindruria, etc.). Acute and chronic renal failure syndrome. Care for patients with urinary system pathology.	4
7.	AFO, methods of examination of endocrine glands. Semiotics of syndromes of hyper- and hypofunction of individual endocrine glands and diseases of the endocrine system in children.	4
8.	AFO of the blood system in children of different age groups. Methods of clinical and laboratory examination of children with blood system lesions. Clinical and hematological semiotics of the main syndromes (anemic, hemolytic, hemorrhagic, etc.) and diseases of the blood system in children. Laboratory methods of studying the functional state of organs and systems of the child's body. Rules and techniques for taking material for research. AFO of the immune system in children of different age groups. Methods for diagnosing immunodeficiencies in children.	4
9.	Writing a child's medical history	4
10.	Final modular control: practical training theoretical training	4
	TOGETHER	**42**
	TOTAL number of hours of practical classes in the discipline, including:	**70**
	final module control of 2 modules of the discipline	**8**

13. THEMATIC PLAN FOR INDEPENDENT WORK

No.	TOPIC	Number of hours	Types control
Module 1: Child Development and Pediatric Nutrition			
1.	Preparation for practical classes - theoretical training and development of practical skills.	7	Current

2.	Independent study of topics that are not included in the classroom lesson plan: The concept of children's health, criteria for its assessment and health groups. Scope and forms of work of a pediatrician. Organization of sanitary, hygienic and anti-epidemic regimes. Hospitalization of patients to a children's hospital and the specifics of the work of children's departments. Dispensary observation and rehabilitation of children in a polyclinic. Sanitary and educational work in pediatric practice. Main statistical indicators of the activities of children's medical and preventive institutions (infant mortality, lethality, etc.). Ethics and deontology in clinical pediatrics. Features of feeding premature newborns. The concept of "free feeding", its forms and indications for use.	7	Summary
3.	Preparation for the final module control	2	Summary
	TOGETHER	**16**	
Module 2: Anatomical and physiological features, research methodology and semiotics of diseases in children			
1.	Preparation for practical classes – theoretical training and development of practical skills	24	Current
2.	Independent study of topics that are not included in the classroom lesson plan: Energy metabolism in children Protein metabolism in children Carbohydrate metabolism in children Lipid metabolism in children Water-electrolyte and acid-base metabolism in children Vitamins, their importance for child development	4	Summary
3.	Writing a medical history	3	Summary
4.	Preparation for the final module control	3	Summary
	TOGETHER	**34**	
	TOTAL SRS in the discipline, including preparation for the final module control	**50** **5**	

14. LIST OF INDIVIDUAL TASKS

- abstract report at a practical session;
- report at clinical conferences in the departments of the clinical base of the department;
- participation in the work of a student club;
- conducting student research and publishing its results;
- participation in discipline olympiads;
- preparation of electronic materials to supplement educational databases.

15. LIST OF THEORETICAL QUESTIONS FOR THE FINAL MODULE TEST

Module 1: **Child Development and Pediatric Nutrition**

THEORETICAL QUESTIONS:

1. Principles of organization and methods of providing medical and preventive care to children in Ukraine.
2. Structure of children's medical and preventive institutions, features of the organization of their work.
3. Organization of sanitary-hygienic and anti-epidemic regimes .

4. Scope and forms of work of a pediatrician.
5. Dynamic observation and rehabilitation of children in a polyclinic setting.
6. Sanitary and educational work in pediatric practice.
7. The concept of children's health, criteria for its assessment and health groups. Ensuring a healthy lifestyle and promoting well-being for all at all ages Ensuring a healthy lifestyle and promoting well-being for all at all ages .
8. Main statistical indicators of the activities of children's medical and preventive institutions (infant mortality, lethality, etc.).
9. The main historical stages of the development of pediatrics in Ukraine.
10. Periods of childhood, their characteristics and features of pathology in different periods of childhood. Reducing inequality , ensuring gender equality, and empowering all women and girls .
11. Anamnesis, features of collecting anamnesis in children.
12. General examination of healthy and sick children. Criteria for assessing the general condition of sick children. Specifics of the examination of seriously ill children with a limited life expectancy. Features of the use of moral and deontological principles in the context of an incurable disease .
13. Newborn child. Physiological, borderline and pathological conditions in the neonatal period.
14. The concept of maturity of a newborn.
15. Primary toilet and care of the newborn.
16. Signs of prematurity, classification of premature babies.
17. Features of the state of functional systems in a premature child.
18. Physical development of children of different age groups.
19. The concept of accelerated development of children, the main hypotheses and mechanisms of acceleration.
20. Semiotics of disorders of physical development of children.
21. Neuropsychological development of children of all ages. Ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all.
22. Semiotics of disorders of neuropsychiatric development in children.
23. The benefits of natural feeding.
24. The importance of breastfeeding for the health of the child and mother. Natural breastfeeding of infants as a way to overcome hunger, achieve food security, and improve early childhood nutrition.
25. Quantitative and qualitative composition of breast milk.
26. Immunobiological role of breast milk.
27. Methods for calculating daily food intake and diet.
28. Complementary feeding and nutritional correction for breastfed children.
29. A child's need for proteins, fats, carbohydrates and calories during natural feeding.
30. Features of feeding premature newborns.
31. The concept of “free feeding”, its forms and indications for use.
32. The concept of artificial feeding of infants.
33. Classification and characteristics of infant formulas for artificial feeding.
34. Artificial feeding techniques and criteria for assessing its effectiveness.
35. Complementary feeding and nutritional correction during artificial feeding.
36. A child's need for proteins, fats, carbohydrates and calories when formula-fed.
37. Diet and nutrition of a nursing woman. Difficulties with breastfeeding.
38. Forms and degrees of hypogalactia (primary, secondary, early and late). Prevention of hypogalactia and mastitis.
39. Mixed feeding. Technique and rules of supplementary feeding.
40. Mixed feeding scheme for children of the first year of life. Complementary feeding and nutritional correction.
41. A child's need for proteins, fats, carbohydrates and calories during mixed feeding.
42. Organization and principles of rational nutrition for healthy children over one year old (early childhood and preschool age).

43. The need for proteins, fats, carbohydrates and calories of children over one year old (early childhood and preschool age).
44. Organization and principles of rational nutrition for school-age children and adolescents.
45. Therapeutic nutrition.

Control methods – oral questioning, solving tests

Module 2: **Anatomical and physiological features, examination methods and semiotics of diseases in children**

THEORETICAL QUESTIONS:

1. Anatomical and physiological features of the nervous system in children.
2. Types of higher nervous activity and phase states in children and their significance for education.
3. Semiotics of the main syndromes (meningeal, encephalitic, convulsive, etc.) and diseases of the nervous system in children (hydrocephalus, cerebral palsy, etc.).
4. Features of cerebrospinal fluid in children and semiotics of its changes in pathology (in purulent and serous meningitis, hydrocephalus, etc.).
5. Morphological and functional features of the skin and its derivatives in children. Features of the structure of subcutaneous tissue.
6. Primary and secondary elements of skin rash. Semiotics of allergic diathesis, purulent-septic skin lesions, etc. Semiotics of subcutaneous tissue lesions.
7. Anatomical and physiological features of the muscular system (hypotrophy, atrophy, hypotension, hypertension, hyperkinesis, paralysis, etc.).
8. Anatomical and physiological features of the skeletal system in children.
9. Semiotics of skeletal system lesions in children. Main manifestations of rickets, scoliosis, congenital dislocation of the hip joint, etc.
10. Anatomical and physiological features of the respiratory system in children.
11. Semiotics of lesions (cough, shortness of breath, etc.) and major respiratory diseases.
12. Syndromes of respiratory disorders and respiratory failure, broncho-obstructive syndrome, main clinical manifestations.
13. Anatomical and physiological features of the heart and blood vessels in childhood.
14. Features of blood circulation in the intrauterine period.
15. The main signs of damage to the cardiovascular system in children (cyanosis, bradycardia, tachycardia, etc.).
16. Semiotics of congenital and acquired diseases of the heart and blood vessels in children (congenital heart defects, endocarditis, myocarditis, pericarditis, pancarditis, etc.).
17. Age-related anatomical and physiological features of the digestive system in children.
18. Semiotics of digestive tract lesions and underlying diseases (pylorospasm, pyloric stenosis, gastritis, peptic ulcer, cholecystitis, biliary dyskinesia, etc.) in children.
19. Abdominal syndrome.
20. Liver failure syndrome.
21. Anatomical and physiological features of the urinary system in childhood.
22. Semiotics of the most common diseases of the urinary system in children (pyelonephritis, glomerulonephritis, cystitis, etc.).
23. Acute and chronic renal failure syndrome.
24. Semiotics of microscopic changes in urinary sediment (protein, erythrocyte, leukocyte and cylindruria, etc.).
25. Anatomical and physiological features of the endocrine system in children.
26. Semiotics of syndromes of hyper- and hypofunction of individual endocrine glands and diseases of the endocrine system in children.
27. Peculiarities of the blood system in children of different age groups. Myelogram in children.
28. Clinical and hematological semiotics of the main syndromes (anemic, hemolytic, hemorrhagic, etc.) and diseases of the blood system in children.
29. The immune system and features of its functioning in children.

30. Features of the functioning of the immune system in newborns and children of other age groups.
31. The concept of immunodeficiencies.
32. Classification and semiotics of immunodeficiency states.
33. Patterns of age-related changes in energy metabolism in children. Peculiarities of neuroendocrine regulation of metabolic processes in children. General ideas about metabolic diseases.
34. Features of protein metabolism and semiotics of its disorders in children.
35. Features of carbohydrate metabolism and semiotics of its disorders in childhood.
36. Features of lipid metabolism and semiotics of its disorders in children.
37. Age-related features of water and mineral metabolism in children. Violations of water and mineral metabolism in children. Violations of water and mineral metabolism and clinical manifestations.
38. Features of the acid-base state of the body in children of different ages.
39. Vitamins, their importance for the development of a child. The importance of vitamins for the metabolic processes of a child's body.
40. Semiotics of hypo- and hypervitaminosis in children.
41. Thermal balance of the child's body. Features of thermogenesis and thermoregulation in childhood.
42. Semiotics of hypo- and hyperthermia in children of different ages.
43. Peculiarities of history taking in children.
44. Assessment of the child's general condition.
45. Interpretation of laboratory and instrumental research results.
46. Semiotics of diseases of specific systems.

Control methods – oral questioning, solving tests.

16. LIST OF PRACTICAL TASKS AND WORKS FOR THE FINAL MODULE CONTROL

Module 1: **Child Development and Pediatric Nutrition**

PRACTICAL SKILLS:

1. Analyze the main statistical indicators of the activities of medical and preventive institutions.
2. Analyze the characteristics of different periods of childhood.
3. Measure the child's basic body parameters (weight, height, head, chest, hip, shin, shoulder circumference).
4. Calculate anthropometric indices.
5. Calculate appropriate indicators of physical development using centile tables.
6. Determine the main criteria and indicators of psychomotor development of children of different ages.
7. Create a diet for a healthy child in the first year of life.
8. Conduct controlled feeding of the child in the first year of life.

Control methods – individual control, demonstration of skills, solving tests, typical tasks.

PROFESSIONAL SKILLS:

1. Evaluate physical development based on the data obtained.
2. Interpret the detected changes in a newborn child based on knowledge of anatomical and physiological features
3. Assess the psychomotor development of a child in the first year of life.
4. Identify factors in the history that influence changes in the child's psychomotor development.
5. To create a diet for a healthy and sick child of all ages and developmental periods.

Control methods – solving a system of atypical problems.

Module 2: **Anatomical and physiological features, examination methods and semiotics of diseases in children**

PRACTICAL SKILLS:

1. Possession of the peculiarities of the methodology for examining the skin and subcutaneous tissue, bone and muscular systems in children.
2. Mastering the direct percussion method.
3. Determination of relative and absolute cardiac limits in children and their assessment depending on age.
4. Determine pulse and blood pressure in children, evaluate them depending on age.
5. Determine the lower limits of the lungs in children, evaluate them depending on age.
6. Determine the respiratory rate in children, evaluate it depending on age.
7. Palpate the liver, spleen, and segments of the intestines in children.
8. Palpate the kidneys, bladder, and determine Pasternatsky's symptom in children.
9. Evaluate blood test results in healthy children of different ages.
10. Identify the symptoms of meningeal damage in children.
11. Assess the child's sexual development.

Control methods – individual control, demonstration of skills, solving tests, typical tasks.

PROFESSIONAL SKILLS:

1. Mastering the technique of subjective and objective examination of the patient.
2. Interpret the detected changes in the diagnostic minimum of additional methods of examining the patient.

Control methods – individual control, demonstration of skills, solving tests, typical problems, solving a system of atypical problems.

17. METHODS AND FORMS OF CONTROL

During the study of the discipline, all types of student activities are subject to control, both current (at each lesson) and final (during control events).

Module control is a diagnosis of a student's assimilation of the module material (credit).

The initial control of students' knowledge is carried out during practical classes and includes checking knowledge of theoretical and practical material studied in previous courses, which is carried out by the method of frontal oral questioning, or writing test papers, for which questions for test papers are used.

Current control of students' knowledge is carried out during practical classes and includes checking knowledge of theoretical material and control of mastery of practical skills, which are provided for by methodological developments of classes on relevant topics. Verification of students' knowledge is carried out by means of oral frontal questioning, solving test tasks of varying degrees of difficulty, solving typical and atypical situational tasks, as well as during verification of the correctness of laboratory and research tasks.

Intermediate control of students' knowledge is carried out during the final tests during the last lesson of the content module.

The grade for a module is determined as the sum of the grades of current educational activities (in points) and the final module control grade (in points) and the final module control grade (in points), which is assigned when assessing theoretical knowledge and practical skills in accordance with the lists defined by the discipline program.

The maximum number of points awarded to students for mastering each module (credit) is 200, including 120 points (60%) for current educational activities, and 80 points (40%) based on the results of the module final control.

The final control of students' knowledge is carried out at the last practical lesson after the completion of the module in the form of a final module control. Students' knowledge of the theoretical material is checked (according to the list of questions). Along with this, students perform practical work, which is attached to the ticket, and solve situational tasks, which is also taken into account when assessing their knowledge.

The final module control (PMC) is carried out after completing the study of all module topics at the last control lesson of the module.

Students who have attended all classroom training sessions provided for in the discipline curriculum and received positive grades ("5", "4", "3"), and who have scored at least the minimum number of points in the module are allowed to take the final module control.

A student who has missed classes, for valid or unvalid reasons, is allowed to work off academic debt by a certain specified deadline.

The maximum number of points a student can score during the final module test is 80.

The final module test is considered passed if the student scores ***at least 50 points*** .

Thus, the shares of the results of the assessment of current educational activities and the final module control are 60% and 40%, respectively.

18. ASSESSMENT OF THE STUDENT'S LEVEL OF PREPARATION IN THE DISCIPLINE

When assessing the mastery of each topic, the student is given grades on a 4-point (traditional) scale and a 200-point scale using accepted and approved assessment criteria for the relevant academic discipline. All types of work provided for in the methodological development for studying the topic are taken into account.

The student must receive a grade for each topic. Grades given on a traditional scale are converted into points depending on the number of topics.

When mastering each topic of the module, the student is given marks on a 4-point traditional scale for the current educational activity, which are then converted into points depending on the topics in the module. The following system of the traditional scoring system into points was applied in the program:

Traditional rating	**Conversion into points**		
	Module 1 Content modules 3 **(No. 1-7)**	**Module 2**	
		Content modules 10 **(No. 8-17)**	**IDRS**
“5”	10	6	6
“4”	8	5	
”3”	6	4	
“2”	0	0	0

The maximum number of points a student can obtain when studying a module is 120. It is calculated by multiplying the number of points corresponding to a grade of “5” by the number of topics in the module, adding points for individual independent work.

The minimum number of points that a student can score when studying a module is calculated by multiplying the number of points corresponding to a grade of “3” by the number of topics in the module.

Points for the student's individual work **(IDRS - provided by the program only when studying the topics of module 2)** are awarded to the student for successfully completing the task according to the list. The number of points for IDRS for module No. 2 is 6 points. They are added to the total points scored by the student for current educational activities.

DISTRIBUTION OF POINTS AWARDED TO STUDENTS

No. in order	Module 1 (current educational activity)	Maximum number of points
	Content module 1	
1.	Topic 1	10
	Content module 2	
2.	Topic 2	10
3.	Topic 3	10
	Content module 3	
4.	Topic 4	10
5.	Topic 5	10
6.	Topic 6	10

7.	Topic 7	10
	Content module 4	
8.	Topic 8	10
9.	Topic 9	10
	Content module 5	
10.	Topic 10	10
	Content module 6	
11.	Topic 11	10
	Content module 7	
12.	Topic 12	10
	Total content modules	**120**
Final modular control:		**80**
practical training		
theoretical training		
TOTAL sum of points		**200**

No.	Module 2 (current learning activity)	Maximum number of points
	Content module 8	
1.	Topic 13	6
2.	Topic 14	6
	Content module 9	
3.	Topic 15	6
4.	Topic 16	6
5.	Topic 17	6
	Content module 10	
6.	Topic 18	6
7.	Topic 19	6
	Content module 11	
8.	Topic 20	6
9.	Topic 21	6
	Content module 12	
10.	Topic 22	6
11.	Topic 23	6
	Content module 13	
12.	Topic 24	6
13.	Topic 25	6
	Content module 14	
14.	Topic 26	6
15.	Topic 27	6
	Content module 15	
16.	Topic 28	6
17.	Topic 29	6
	Content module 17	
18.	Topic 36.1	6
19.	Topic 36.2	6
	IDRS	**6**
	Total content modules	**120**
Final modular control:		**80**
practical training		
theoretical training		

TOTAL sum of points	200

EXAMPLE OF CALCULATING POINTS FOR A STUDENT'S CURRENT EDUCATIONAL ACTIVITY (MODULE 2)

When mastering each topic of module 2, the student is given grades on a 4-point traditional scale for current educational activities, which are then converted into points depending on the topics in the module (+ 6 points of the IDRS).

19. RECOMMENDED READING

19.1. Basic

1. Methodological guidelines for 3rd year students specialty "General Medicine" for independent work of students in preparation for the practical (seminar) class.

2. Guideline for the students to study the discipline "propaedeutic pediatrics", ed. prof. Nechytailo YM - Chernivtsi, 2014. - 24s.

3. Growth and development of the child / Nechytailo Yu.M., Nechytailo D. Yu, Buriak OG - Chernivtsi, 2012. - 145 p.

4. Nechitaylo Yu. Growth and development of the child / Yu. Nechitaylo, D. Nechytailo, O. Buriak - Chernivtsy: BSMU, 2012. - 154p.

5. Nelson Textbook of Pediatrics / edited by Richard E. Behrman, Robert M. Kliegman, Ann M. Arvin; senior editor, Waldo E. Nelson - 19th ed. - WBSaunders Company, 2011. - 2640 p.

19.2. Auxiliary

1. Robert Kliegman , Richard Behrman , Hal Jenson , Bonita Stanton . Nelson textbook of Pediatrics. 18th Edition - Elsevier , 2020. - 3200 p.

19. 3. Information resources

1. http://moz.gov.ua/ua/portal/
2. http://moodle.bsmu.edu.ua
3. http://medlib.bsmu.edu.ua

20. COMPILERS OF THE STUDENT'S GUIDE (SYLLABUS)

1. Nechytaylo Yu.M., Head of the Department of Pediatrics, Neonatology and Perinatal Medicine, Doctor of Medical Sciences, Professor;
2. Bezruk V.V., professor of the higher education institution of the Department of Pediatrics, Neonatology and Perinatal Medicine, Doctor of Medical Sciences, professor.
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