FACULTY OF MEDICINE
STUDY PROGRAM 0912.1 MEDICINE
DEPARTMENT OF PEDIATRICS

APPROVED
at the meeting of the Commission for Quality Assurance and Evaluation of the Curriculum inMedicine/Pharmacy/ Dentistry
Minutes No. 1 of 16.09.21
Chairman MD, Ph.D, Professor
Suman Sergei _____

APPROVED
at the Council meeting of the Faculty
Minutes No. 1 of 21.09.21
Dean of Faculty Medicina 2
Ph.D, Associate Professor
Betiu Mircea _____

APPROVED
approved at the meeting of the chair Pediatrics Department
Minutes No. 1 of 08.09.2021
Head of chair MD, Ph.D, Professor
Ninel Revenco _____

SYLLABUS

DISCIPLINE Puericulture, Neonatology, Pediatrics

Integrated studies

Tipe of course: **Compulsory**

Curriculum developed by the team of authors:

Ninel Revenco, MD, Ph.D, Professor
Ecaterina Stasii, MD, Ph.D, Professor
Angela Ciuntu, MD,Ph.D, Professor
Lilia Romanciuc, Ph.D, Associate Professor
Angela Cracea, Ph.D, Associate Professor
Olga Buga, Ph.D, Associate Professor
Oxana Turcu, Ph.D, Associate Professor
Florin Cenusa, Ph.D, Associate Professor
Adrian Rotari, Ph.D, Associate Professor
Angela Cracea, Ph.D, Associate Professor
Rodica Eremciuc, University Assistant
Vladimir Iacomi, University Assistant

Chisinau, 2021

I. INTRODUCTION

- **General presentation of the discipline: place and role of the discipline in the formation of the specific competences of the professional / specialty training program**

Pediatrics represents one from basic disciplines in the universitary training of physicians. Ethymological *"pediatrics"* derives from greec word *pais, paidos* (child) and *iatros* (doctor). The childhood age is particular in the biologic evolution of human, it begins with the birth and ends in the adolescent period. The essential character of age, constituting the study of pediatrics, is the *process of growing and development,* which has two fundamental sides: accumulation of organic mass and differentiation, i. e. modification of different tissues and organs form and structure. *Pediatrics* is a discipline essentially different from internal medicine of adult. Affirmation that *"the child is notan adult in miniature"* must be taken into consideration in all situations in which the child's care is according (prophylactic consultation, treatment, education etc.). The domain of *pediatrics* is great and complexe, including first of all the *preventive, curative, social, comportamental* pediatrics. In this discipline the future specialist studies and assimilates the practical skills and contemporan methods of diagnosis, treatment and prophylaxis of diverse pathologies in children. During the pediatrics study the fundamental knowledges are used (anatomy, physiology, microbiology etc.), there is integration with other disciplines – neonatology, neuropediatrics, infectious diseases in children, children's surgery etc. Pediatrics is allied with puericulture which originates from Latin word puer (child) and cultura (growing).

As conclusion *the modern pediatrics* presumes the following principal activities: *knowledge and influencing of social and living medium in which the child is developing; antenatal and postnatal prophylaxis; proper diagnosis and treatment of diseases; rehabilitation; using of all means for health state improving, increasing of child's physical and intelectual performances at all stages of his growing and development.*

- **Mission of the curriculum (aim) in professional training**

Aim of the discipline

Training in Pediatrics has the aim to learn anatomical and functional features of child's organism depending on age, to achieve basic knowledge of medical semeiology and practical skills of diagnosis, treatment and prophylaxis of childhood diseases. The major goal of pediatrics is the preventive work. Also, students will learn diseases and disorders of different organs and systems specific for different child's age.

Languages of the course: Romanian, English, French, Russian,;

- Beneficiaries: students of the V year, faculty Medicine.

II. MANAGEMENT OF THE DISCIPLINE

Code of discipline		**S.09.O.073**	
Name of the discipline		**Puericulture**	
Person(s) in charge of the discipline		**MD, Ph.D, Professor Ninel Revenco**	
Year	**V**	Semester/Semesters	**9-10**
Total number of hours, including:			**60**
Lectures	**10**	Practical/laboratory hours	**10**
Seminars	**10**	Self-training	**30**
Form of assessment	**E**	Number of credits	**2**

Code of discipline		**S.09.O.074**	
Name of the discipline		**Neonatology**	
Person(s) in charge of the discipline		**MD, Ph.D, Professor Ninel Revenco**	
Year	**V**	Semester/Semesters	**9-10**
Total number of hours, including:			**60**
Lectures	**10**	Practical/laboratory hours	**10**
Seminars	**10**	Self-training	**30**
Form of assessment	**E**	Number of credits	**2**

Code of discipline		**S.09.O.075**	
Name of the discipline		**Pediatrics**	
Person(s) in charge of the discipline		**MD, Ph.D, Professor Ninel Revenco**	
Year	**V**	Semester/Semesters	**9-10**
Total number of hours, including:			**330**
Lectures	**70**	Practical/laboratory hours	**70**
Seminars	**70**	Self-training	**120**
Clinical internship			
Form of assessment	**E**	Number of credits	**11**

III. TRAINING AIMS WITHIN THE DISCIPLINE

At the end of the discipline study the student will be able to:

- ***at the level of knowledge and understanding:***

1. Obtaining knowledge of medical terminology
2. Obtaining of necessary knowledge to identify main syndromes of childhood diseases
3. To learn about basic anatomical, physiological, functional and morphological features of the child's body according to the age
4. Principles of nutrition for healthy and sick children of different ages.
5. Evolution of the physiological processes in childhood: growth and development, care, prevention, social pediatrics, behavioral development.
6. International Classification of Diseases (ICD-10).
7. Basic principles of pediatric diseases: etiology, pathogenesis, typical clinical manifestations of the disease in childhood, the principles of diagnosis, treatment and prevention of these diseases.
8. Indications and contraindications for the use of laboratory methods, diagnostic tools, and other diagnostic methods in pediatrics.
9. Analysis of the clinical signs and symptoms together with diagnostic exploration results – positive diagnosis making.
10. Indications and contraindications for treatment with drugs approved in pediatrics.
11. Methods of disease prevention in children, National Immunization Program in Moldova.

- ***at the application level:***

1. Medical records and documentation in use: patient's file, evolution of the treatment and discharge report.
2. Anthropometric measurements in assessing child physical development of various ages.
3. Techniques and methodologies for the collection of a case history (interview).
4. Performing a general physical exam and review of systems in a child of different ages.
5. Assessment of the neuro-psychological development in children of different ages.
6. Assessment of the nutritional status of children, prescription of the diet for children of different ages.
7. Recognition of vital signs and symptoms, clnical signs of different diseases, major syndromes in childhood.
8. Pointing and interpret laboratory test results: clinical, biochemical and immunological.
9. To show and interpret the results of instrumental investigations, imaging studies, etc.
10. Making a definitive clinical diagnosis according to existing classifications.
11. Making a differential diagnosis.
12. Prescribing necessary treatment indications according to the established diagnosis, drawing of the prevention and rehabilitation program.
13. Drawing of the follow up and rehabilitation program for patients with chronic diseases.
14. Emergency medical care in critically ill children.
15. Promotion of the principles of ethics and deontology in children's healthcare.
16. Clinical cases presentation.
17. Education of mothers about the child's health issues.
20. Emergency medical care for critical child. The student must know and apply the following knowledge and practical skills:

- To know the ventilation technique with mask balloon;
- To know the technique of pediatric external cardiac massage;
- To know the technique of newborn endotracheal intubation;

- To know ABCD steps of neonatal resuscitation, including monitor data;
- To learn the principle of team segregation of duties;
- To know the management of children with nasal CPAP;
- To identify the symptoms of shock in children;
- To identify newborns requiring primary life support in the delivery room and newborns requiring resuscitation.
- To recognize cardiopulmonary arrest in infants
- To know the ABCDE (Airway, Breathing, Circulation, Disability, Exposure/Examination) approach
- To identify respiratory disturbances (stridor, wheezing, gasping)
- To know techniques of Pediatric Airway Maintenance and Clearance
- Know the assessment of cardiovascular function in children (basic and advanced)
- To know the technique of measuring Capillary Recall Time in a child
- To know Pediatric Basic Life Support and partially Pediatric Advanced Life Support
- To know the technique of Oxygen therapy using nasal cannula, face mask, and Non-Rebreather Mask
- To know techniques of safety positioning in critically ill patients
- To apply correct techniques of immobilization in pediatric trauma (cervical collar, neck stretcher)
- Identify a patient with convulsions and to know (apply) anticonvulsant medication
- To perform oral rehydration according to plan A and plan B
- To administer correct medication in hypovolemic and anaphylactic shock
- To perform defibrillation in cardiopulmonary arrest.

- ***at the integration level:***

1. To assess the importance of Pediatrics discipline in the context of General Medicine and integration with health related disciplines.
2. To develop knowledge of the integrated approach to healthy and sick child, and principles of child's healthcare.
3. To promote the implementation of new knowledge and principleas of healthcare for proper development of health workers in all sub-specialities, parents and care givers.
4. To achieve knowledge about the evolution of physiological processes in the body of the child, and risk factors for the occurrence of disease in childhood.
5. To integrate the knowledge about principles of child healthcare with new methods of child development stimulation, as well as with current guidelines and protocols approved by the Ministry of Health of the Republic of Moldova.
6. To learn and develop principles of diagnostic approach, diagnosis and clinical decision making.
7. To implement during the university program the approach for child's healthcare for the level of family medicine.

IV. PROVISIONAL TERMS AND CONDITIONS

Pediatrics is one of the core subjects in the university training of medical doctors. Childhood period has specific features in its evolution, beginning with birth and ending with adolescence. Pediatrics is a fundamental discipline that differs from internal medicine field. The field of *pediatrics* is large and complex, and it includes aspects of *preventive*, *curative*, *social*, *developmental* medicine.

During this course the future specialist studys and endorses practical skills and modern methods of diagnosis, treatment and prevention of various diseases in children. During the pediatric course students apply and integrate their fundamental knowledge (anatomy, physiology, microbiology, etc.) with other disciplines - neonatology, neuropediatrics, infectious diseases in children, pediatric surgery, etc.

V. THEMES AND ESTIMATE ALLOCATION OF HOURS

Lectures, practical hours/ laboratory hours/seminars and self-training

No. d/o	THEME	Number of hours		
		Lectures	Practical hours	Self-training
1.	Pediatrics- branch of medicine. Medical assistance to children in the Republic of Moldova: principles of organization, legal basis. Groups of health. Notion of a healthy child. Indexes of health. The criterions of healthy child. Periods of childhood: characteristics. Risk groups in pediatrics. Risk factors. Critical periods in the development of a child.	3	4	6
2.	Child's growth and development-characteristics, specific features. Growth and development. Methods of assessment, techniques of examination. Integrated assessment of child's health state.	2	4	6
3.	Principles of psychomotor development. Neurologic development of newborn and suckling baby: factors of influence, particuliarities. Methods of neuro-psychic development assessment. Physiologic and pathologic reflex activity. Assessment behaviour: fine and rough motor activity, verbal (language), cognitive, social-affective,behavioral activity. Motor, verbal, cognitive, behavioral, social, emotional deficiencies. Assessment of abuse and negligence signs. Methods of neuropsychic development and stimulation-education in children. Assessment and valuation of neuropsycho-motory development in children. Approach of adolescent in the medical practice.	2	4	6
4.	The particularities of feeding in children. Breastfeeding, advantages.	2	4	6
5.	Nutrition and alimentation of children. Mixed and artificial feeding. Nutrition and alimentation of children. Feeding children over one year. Assessment of practical skills the care, development and feeding of children.	1	4	6
		10	**20**	**30**
	NEONATOLOGY			
6.	Examination of a new-born. Essential care of a healthy baby (child), congenital defects, thermal control of a new-born. Adaptation of a new-born. Care of a healthy new-born or the one with various pathologies.	2	5	9
7.	Hemolytic disease of new-borns	2	5	7
8.	Premature new-borns. Measurement criteria of gestational age. Respiratory distress syndrome. Neonatal resuscitation. Emergency in neonatalogy	3	5	7
9.	Sepsis in new-borns.	3	5	7
		10	**20**	**30**
	PEDIATRICS			
10.	Anatomical and physiological particularities of nervous system in children. Ontogenesis of the nervous system. Principal elements of morphofunctional evolution of the nervous system in infants and children. Methods of clinical examination of the nervous system. Symptoms and syndromes of a disease: flabby child, convulsions (seizures), coma, intracranial hypertension, cerebral edema, meningism. Methods of supplemental investigations. Fever and	4	4	3

No. d/o	THEME	Number of hours		
		Lectures	Practical hours	Self-training
	hyperthermic syndrome in children. Febrile convulsions in children.			
11.	Morphofunctional particularities of bone system in children. Methods of locomotor system examination in children of different ages. Semeiology of diseases. Morphofunctional particularities of the muscular system in children. Methods of examination of muscles in children. Semeiology of muscular tissue diseases. Semeiology of basic rheumatic and conjunctive tissue diseases, systemic vasculitis. Deficient rickets in children. Metabolism of vitamin D, P and Ca. Spasmophilia. Hypervitaminosis D.	2	4	3
12.	Anatomical and physiological specific features of teguments, mucosae and their derivatives (hair, nails), subcutaneous adipose tissue in children according to the age. Anatomical and physiological specific features of the immune system in children. Critical periods in the development of immune reactivity of children. Methods of immune system examination in children. Semeiology of immune system disorders in children. The system of lymph nodes. Semeiology of lymph nodes and basic types of adenopathies.	2	4	3
13.	The anatomical and physiological particularities of the digestive system in children. Physiology of gastric and intestinal secretion. Digestion, absorption and transport of alimentary substances. Clinical examination of the digestive system in children. The specific features of anamnesis. Abdominal painful points and their significance. Supplemental investigations of digestive system in children. Semeiology of digestive system affections in children of different ages. Functional disorders of the digestive tract in children.	2	4	3
14.	Acute and chronic nutritional disorders in children. Malnutrition. Hypostature.	2	4	3
15.	Anatomical and physiological particularities of the respiratory system in children. The lung: its structure and functions. Methods of clinical examination of the respiratory system in children. Semeiology of respiratory system diseases in children. Basic syndromes of respiratory system diseases in children. Supplemental methods of investigation.	2	4	3
16.	Acute viral infections in children: pharyngitis, laryngitis, epiglottitis, croup.	2	4	3
17.	Bronchitis in children. Acute bronchitis. Obstructive bronchitis. Bronchiolitis. Recurrent bronchitis.	2	4	3
18.	Acute viral and bacterial pneumonias in children. Diseases of pleura (pleurisy, pneumothorax).	2	4	3
19.	Chronic bronchopulmonary diseases in children. Cystic fibrosis. Bronchiectatic disease. Primary ciliary dyskinesia (Kartagener's syndrome). Bronchopulmonary dysplasia. Primary pulmonary interstitial diffuse fibrosis. Pulmonary hemosiderosis. Athelectasis. Chronic bronchitis. Respiratory insufficiency	2	4	3
20.	Anatomical and physiological characteristics of the hematopoietic system in children. Blood tissue. Hematopoietic organs and their characteristics. Hematopoiesis. Methods of clinical and paraclinical examination of the hematopoietic system in children. Specific features of anamnesis. Semeiology of hematopoietic system diseases in children. Basic syndromes of the hematopoietic system diseases in children.	2	4	3

No. d/o	THEME	Number of hours		
		Lectures	Practical hours	Self-training
21.	Hereditary anemias in children. Hemolytic hereditary anemias (enzymopathies, membranopathies, hemoglobinopathies). Hereditary aplastic anemias in children.	2	4	3
22.	Acquired anemias in children. Deficient anemias. Classification. Iron deficient, vitamin B12, folic acid deficient anemias. Acquired hemolytic and aplastic anemias.	2	4	3
23.	Hemorrhagic diatheses in children. Thrombocytopenias. Idiopathic thrombocytopenic purpura. Thrombocytopathies. Hemorrhagic vasculitis in children.	2	4	3
24.	Coagulopathies in children. Hemophilia A,B,C. Von Willebrand disease.	2	4	3
25.	Anatomical and physiological specific features of urinary system in children of different age. Particularities of anamnesis. Methods of clinical examination of the urinary system. Urine aspect modifications. Methods of supplemental examination. Basic renal syndromes and their specific features in main nephropathies in children. Semeiology of congenital and acquired diseases of the urinary system. Enuresis. Neurogenic urinary bladder in children.	2	4	3
26.	Urinary tract infection in children. Cystitis. Pyelonephritis.	2	4	3
27.	Acute and chronic glomerulonephritis in children. Nephrotic syndromes.	2	4	3
28.	Acute renal failure. Chronic renal failure.		4	3
29.	Malabsorption syndrome in children. Definitions. Classification. Cystic fibrosis. Celiac disease. Lactose intolerance. Intolerance to cow's milk protein.	2	4	3
30.	Gastritis, gastroduodenitis in children. Ulcerative disease in children.		4	3
31.	Biliary pathways dysfunction. Cholecystitis in children. Biliary lithiasis in children.		4	3
32.	Acute and chronic pancreatitis in children.		4	3
33.	Chronic nonspecific colitis. Ulcero-hemorrhagic rectocolitis. Crohn's disease.		4	3
34.	Chronic hepatitis in children. Hepatic cirrhosis. Acute and chronic hepatic failure in children.	2	4	3
35.	Bronchial asthma in children.	2	4	3
36.	Anatomical and physiological specific features of cardiovascular system in children of different ages. Particularities of anamnesis. Methods of clinical examination of cardiovascular system. Methods of supplemental examination. Semeiology of diseases of cardiovascular system in children.	2	4	3
37.	Congenital cardiopathies in children.	2	4	3
38.	Acute and chronic cardiac failure in children.	2	4	3
39.	Cardiac arrhythmias in children and adolescents.	2	4	3
40.	Primary cardiomyopathies. Diseases of myocardium in children.	2	4	3
41.	Rheumatic diseases in children. Semeiology of rheumatic diseases. Acute rheumatic fever in children. Chronic rheumatic cardiopathy in children	2	4	3
42.	Diffuse diseases of conjunctive tissue in children. Idiopathic rheumatoid arthritis. Systemic lupus erythematosus. Dermatomyositis. Systemic scleroderma.	2	4	3
43.	Emergency in pediatrics	3	8	10
44.	Clinical case			8

No. d/o	THEME	Number of hours		
		Lectures	Practical hours	Self-training
Total		**70**	**140**	**120**
		330		

VI. PRACTICAL TOOLS PURCHASED AT THE END OF THE COURSE

Mandatory essential practical tools are:

- Completing of current medical documents: registration in the observation file of the hospitalized patient, argumentations, daily evidence of the patient's condition and evolution of the disease, including electronic documents;
- Care and supervision of the newborn: clinical examination, skin toilet, correct positioning and attachement to the breast.
- Care and supervision of the premature newborn without other associated pathology.
- Appreciation of newborn after Apgar, Silverman, Ballard score, score of risk for sepsis and hemolytic disease of newborn.
- Anthropometric measurements (height, weight, head and chest perimeters) with appreciation of physical development of the child at different ages.
- Completing and interpretation of growth nomograms (height, weight perimeters) in children.
- Collection and evaluation of anamnesis (interview) with elaboration of conclusion about pediatric patient.
- General objective clinical examination in children of different ages (inspection, palpation, percussion, auscultation).
- Appreciation of psychomotor development in children according to the age.
- Appreciation of the nutritional status of the child.
- Prescribing of correct alimentary ration for children by different age groups.
- Evaluation of lymph nodes in children.
- Appreciation of pubery development (Tanner stages) in children.
- Recognition of vital signs, symptoms and signs of disease, the major syndromes in child pathology.
- Elaboration of the plan for laboratory investigations: clinical, biochemical, bacteriological, immunological.
- Elaboration of the plan for additional instrumental, imagistic investigations.
- Interpretation of the results of laboratory analyzes, instrumental, imagistic investigations: ECG, Echo-CG, abdominal ultrasonography, cardio-pulmonary and abdominal radiography, spirometry, scintigraphy.
- Formulation the final clinical diagnosis according to the inernational classifications of diseases (CIM-X).
- Performing a differential diagnosis.
- Management and treatment of a child according to the established diagnosis, follow-up.
- Making a plan for follow-up of a patient with chronic diseases.
- Recognition general signs of danger in children.

Component ***Virtual training / basic simulation in Pediatrics and Neonatology.*** Providing emergency medical care to the child in critical condition.

1. To possess the ABCD stages of neonatal resuscitation;

2. To possess neonatal resuscitation using monitor data;
3. To possess the technique of endotracheal intubation in newborn;
4. To possess the catheterization of umbilical vein;
5. To recognize the cardio-respiratory arrest in children;
6. To possess the stages of ABCDE evaluation (airway, breathing, circulation);
7. To possess the techniques of the airways in children;
8. To possess the maneuvers of pediatric basal life support;
9. To possess the technique of external cardiac massage in children;
10. To possess the technique of balloon ventilation with mask in children;
11. To possess the Oxygen Therapy technique on the nasal cannula, balloon and facial mask;
12. To possess the technique of Capillary Refill Time measuring in children;
13. To possess the technique of safe positioning of the pediatric critical patient;
14. To be able to identify the state of shock in children;
15. To administer the medication in hypovolemic shock;
16. To administer the medication in anaphylactic shock;
17. To be able to identify the disorders of respiratory function (apnea, stridor, wheezing, gasping);
18. To be able to apply the airway adjuvants (oropharyngeal cannula);
19. To identify the patient with seizures and to know (to apply) the anticonvulsant medication;
20. To determine the signs of dehydration and to appreciate the degree of dehydration (according to WHO).
21. To perform the oral rehydration in children according to plan A and B according patient's age (WHO).
22. To possess the technique of nasogastric tube.
23. To assess correctly the degree of severity in the case of foreign body aspiration;
24. To possess the techniques of airways unblocking in foreign body aspiration.
25. To possess the technique of inhalation with β2-adrenomimetics in exacerbation of bronchial asthma in children.
26. To possess the inhalation techniques in the therapy of bronchial asthma using devices.

VII. REFERENCE OBJECTIVES OF CONTENT UNITS

Objectives	Content units
Topic (Chapter) 1. Puericulture (child-care) and Pediatrics - definitions, basic concepts. The periods of childhood. Growth and development of the child. Physical (somatic) growth of the child. Neuro-psychological development of the child.	
• To define the concepts of Puericulture, Pediatrics, pediatric fundamental concepts. • To know the standards of medical pediatric follow up. • To know the characteristic and meaning of childhood periods. • To know the mechanisms and laws of child's growth and development. • To know and assess child's physical growth and neuro-psychological development.	Definitions of Puericulture and Pediatrics. The healthy child. Standards of medical pediatric follow up. Characteristics of childhood periods. The laws and mechanism of child growth and development. Immunoprophylaxis of children. The vaccination schedule. Indications and contraindications. Side effects. Methods of assessment of physical growth and neuro-psychological development of children. Sexual maturation in boys and girls – criteria, terms. Bone maturation, puberty. Diagnosis of physical growth. Adolescent approach in medical practice.

Objectives	Content units
Topic (Chapter) 2. Nutrition and diet of childen and adolescents	
• To define the notions of nutrition, energy needs, quantitative and qualitative nutrition, hydration, and metabolism in children according to their age. • To know the principles of breatfeeding, formula and mixed feeding of infants. • To know the principles of diversification with solid food. • To know the principles of preschool and school children feeding. • To prescribe the accurate food ratio in children according their age group. • To explain the need of healthy food in disease prophylaxis.	Peculiarities of nutrition and metabolism in children, quantitative and qualitative nutritional needs in children; plastic factors, energetic factors, biocatalytic factors of nutrition. Breastfeeding – advantages, the composition of human milk, techniques of breastfeeding. Diversification with solid food in infants: principles, indications, technique. Formula and mixed feeding: principles, milk formulas for children, composition and caloric value of milk formulas, formula feeding technique. Principles of preschool and school children feeding: food ratio, physiological needs, product spectrum, volume. Forbidden foods. Diet calculation.
Topic (Chapter) 3. Neonatology	
• To know anatomic and physiological features of term newborn, with low birth weight. • To demonstrate newborn examination, to assess gestational age, to provide newborn care. • To define the transient (physiological) states in neonates. • To know new-born hemolytic disease. • To know neonatal sepsis, respiratory distress syndrome. • To know and apply neonatal resuscitation. • To show skills of analysis and systematization of knowledge in neonatology • To apply the knowledge from other disciplines in the medical approach of a healthy and sick newborn. • To formulate conclusions about newborn examine.	Anatomic and physiological features of term newborn, with low birth weight (premature, dismature). Neonatal examination, care of healthy and ill newborn, newborn breastfeeding. Transient (physiological) states in neonates. Neonatal jaundice. Newborn hemolytic disease. Premature newborn. Anatomic and functional features of premature newborn. Criteria for assessing gestational age. Intrauterine growth restriction. • Newborn sepsis. Respiratory distress syndrome. Neonatal resuscitation.
Topic (Chapter) 4. Pathology of young child	
• To know anatomic and physiological features, methods of clinical examination of the nervous system in children; neurologic symptoms and syndromes in children. • To know peculiarities of fever and hyperthermic syndrome in children. Febrile seizures in children. • To know Vitamin D, Calcium and	Peculiarities of pediatric clinical exam. Anatomic and physiological features, methods of nervous system examination in children. Symptoms and syndromes of neurologic disorders. Fever and hyperthermic syndrome in children. Febrile seizures in children. Rickets. Metabolism of Vitamin D, Calcium and Phosphorus. Spasmophilia. Hypervitaminosis D. Anatomic and physiological features of teguments, mucous membranes, subcutaneous adipose tissue in children

Objectives	Content units
Phosphorus metabolism. Rickets. Spasmophilia. Hypervitaminosis D. • To know lymphatic system features, the main types of adenopathy in children. • To know the anatomic and physiological features of the immune system in children, primary and secondary immunodeficiency in children. • To know chronic nutritional disorders in children: malnutrition, childhood obesity. • To assess nutritional status, to prescribe accurate diet for children with malnutrition, obesity.	according their age. The lymph nodes and the main types of adenopathy in children. The anatomic and physiological features of immune system in children. Immune system organs and functions. Methods of immune system examination in children. Semiology of immune system disorders in children. Primary and secondary immune deficiencies in children. Chronic nutrition disorders in children. Malnutrition. Childhood obesity.
Topic (Chapter) 5. Respiratory system diseases in children	
• To know the anatomic and physiological features and methods of clinical and paraclinical examination of respiratory system in children. • To define the main syndromes of respiratory system affection in children. • To know the etiological, pathogenetic features of acute upper respiratory infections in children: rhinopharyngitis, laryngitis, epiglottitis, croup, tonsillitis, acute bronchitis, bronchiolitis, and obstructive bronchitis. • To know the etiological, pathogenic peculiarities of acute and chronic diseases of lung parenchyma, diseases of pleura in children • To know and apply laboratory and diagnostic imaging methods in children with respiratory system diseases • To demonstrate positive and differential diagnosis of bronchopulmonary diseases in children. • To know and apply the methods of treatment of bronchopulmonary diseases in children. • To show knowledge and skills in analyzation and systematization of respiratory diseases in children. • To apply the knowledge gained in other disciplines in the clicico-diagnostic approach of the child with respiratory system disorders.	General characteristics and basic concepts of respiratory diseases in children. Anatomic and physiological features, methods of clinical and paraclinical examination of respiratory system in children, the semiology and main syndromes of respiratory system affection in children. Classification of respiratory system diseases in children. Acute upper respiratory infections in the child: rhinopharyngitis, laryngitis, epiglottitis, croup, tonsillitis. Foreign body aspiration. Pediatric bronchitis. Acute bronchitis. Bronchiolitis. Obstructive bronchitis. Community acquired pneumonia in children. Pleural diseases in children (pleural effusion, pneumothorax). Chronic bronchopulmonary diseases in children. Acute and chronic respiratory failure in children. Positive and differential diagnosis of respiratory diseases in children. Principles and peculiarities of treatment in respiratory diseases in children. Discussion of clinical cases – clinical peculiarities, clinical and paraclinical diagnosis, treatment and evolution. Principles of prophylaxis of respiratory diseases in children.

Objectives	Content units
• To apply knowledge gained during clinical case analysis of children with respiratory system disorders. • To formulate a conclusions on a child with respiratory system disorders.	
Theme (chapter) 6. Diseases of the Blood in Children	
• To define basic concepts of hematopoietic disorders in children. • To know anatomical and physiological peculiarities, methods of clinical and paraclinical examination of the hematopoietic system in children. • To know peculiarities of the hematopoiesis and hemostasis in children. • To know semeiology and major syndromes of hematopoietic disorders in children. • To know peculiarities of etiology and pathogenesis of the anemic syndrome in children. • To know and to apply laboratory and instrumental methods for diagnosis of inherited and acquired anemias. • To know peculiarities of etiology and pathogenesis of the hemorrhagic syndrome in children. • To know and to apply laboratory and instrumental methods for diagnosis of bleeding disoders in children. • To demonstrate abilities to diagnose and to perform differential diagnosis of hematopoieic disorders in children. • To know and to apply treatment methods for hematopoieic disorders in children. • To demonstrate abilities of analysis and systematization of knowledge in different forms of hematopoieic disorders in children. • To apply the knowledge gained at other disciplines for the clinical and diagnostic assessment of a child with hematopoieic disorder. • To apply the gained knowledge for the analysis of case studies in children with hematopoieic disorders. • To generate conclusions in a case of a child with hematopoietic disorder.	Basic concepts in Pediatric Hematology. Anatomical and physiological peculiarities, methods of clinical and paraclinical examination of the hematopoietic system in children. Semeiology and major syndromes of hematopoietic disorders in children. Definition and classification af anemias. Substrate deficiency anemias: iron deficiency, vitamin B_{12} and folate defficiency anemia. Inherited hemolytic anemias (enzymopathies, membranopathies, hemoglobinopathies), acquired hemolytic anemias in children. Inherited and acquired aplastic anemias in children. Principles of diagnosis and differential diagnosis in children with anemia. Principles and peculiarities of treatment of children with different forms of anemia. Hemorrhagic disorders in children. Classification. Idiopathic thrombocytopenic purpura. Thrombocytopathies. Hemorrhagic vasculitis in children. Coagulation disorders in children. Hemophilia A, B. Von Willebrand disease. Principles of diagnosis and differential diagnosis in children with bleeding disorders. Principles and peculiarities of differentiated treatment in different bleeding disorders in children. Discussion of case studies – clinical peculiarities, clinical and laboratory diagnosis, treatment and evolution.

Objectives	Content units
Theme (chapter) 7. Kidney and urinary tract diseases in children	
• To define basic concepts in kidney and urinary tract diseases in children. • To know anatomical and physiological peculiarities, methods of clinical and paraclinical examination of the kidney and urinary tract in children of different ages. • To know semeiology and major syndromes of kidney and urinary tract diseases in children. • To know and to apply laboratory, instrumental and imaging methods for the diagnosis of urinary tract infections in children. • To know and to apply laboratory, instrumental and imaging methods for the diagnosis of acute and chronic glomerulonephritis in children. • To define acute and chronic renal failure in children. • To know and to apply therapeutic methods of kidney and urinary tract diseases in children. • To demonstrate abilities of analysis and systematization of knowledge in different forms of kidney and urinary tract diseases in children. • To apply the knowledge gained at other disciplines for the clinical and diagnostic assessment of a child with kidney and urinary tract disease. • To apply the gained knowledge for the analysis of case studies in children with kidney and urinary tract diseases. • To generate conclusions in a case of a child with kidney and urinary tract disease.	General characteristics and basic concepts in kidney and urinary tract diseases in children. Anatomical and physiological peculiarities of kidneys and urinary tract in children of different ages. Semeiology and major syndromes of kidney and urinary tract diseases in children. Methods of kidney and urinary tract clinical examination in children. Additional examination methods. Classification of kidney and urinary tract diseases in children. Urinary tract infection in children: cystitis, pyelonephritis. Principles of diagnosis and differential diagnosis in children with urinary tract infection. Principles and peculiarities of treatment of children with different forms of urinary tract infection. Acute poststreptococcal glomerulonephritis in children. Chronic glomerulonephritis in children. Idiopathic nephrotic syndrome in children. Principles of diagnosis and differential diagnosis in children with glomerulonephritis in children. Principles and peculiarities of treatment of children with different forms of glomerulonephritis. Acute and chronic renal failure in children. Discussion of case studies – clinical peculiarities, clinical and laboratory diagnosis, treatment and evolution.
Theme (chapter) 8. Digestive system disorders in children	
• To define basic concepts of digestive system disorders in children. • To know anatomical and physiological peculiarities, semeiology, and methods of clinical and paraclinical examination of digestive system disorders in children. • To define clinical syndromes specific for digestive system disorders in children. • To know peculiarities of etiology,	General characteristics and basic concepts in digestive system disorders in children. Anatomical and physiological peculiarities of digestive system in children of different ages. Semeiology and major syndromes of digestive system disorders in children. Clinical examination methods of digestive system in children. Additional examination methods. Classification of digestive system disorders in children.

Objectives	Content units
pathogenesis, principles and peculiarities of clinical diagnosis in children with digestive system disorders. • To know and to apply laboratory, instrumental and imaging methods for diagnosis of digestive system disorders in children. • To know and to apply methods of specific and general treatment for digestive system disorders in children. • To demonstrate abilities of analysis and systematization of knowledge in different forms of digestive system disorders in children. • To apply the knowledge gained at other disciplines for the clinical and diagnostic assessment of a child with digestive system disorder. • To apply the gained knowledge for the analysis of case studies in children with digestive system disorders. • To generate conclusions in a case of a child with digestive system disorder. • To understand how to apply principles of prophylaxis for digestive system disorders in children. •	Malabsorption syndromes in children. Definitions. Classification. General presentation. Celiac diseases. Cystic fibrosis. Lactose intolerance. Cow's milk protein intolerance. Gastritis, gastroduodenitis in children. Peptic ulcer diseases (gastric and duodenal ulcer) in children. Biliary tract dysfunction. Cholecystitis in children. Cholelithiasis in children. Acute and chronic pancreatitis in children. Chronic non-specific colitis. Ulcerative colitis. Crohn's diseases. Chronic hepatitis in children. Cirrhosis of the liver. Acute and chronic liver failure. Principles of diagnosis and differential diagnosis in children with digestive system disorders. Principles and peculiarities of treatment of children with different forms of digestive system disorders. Discussion of case studies – clinical peculiarities, clinical and laboratory diagnosis, treatment and evolution.
Theme (chapter) 9. Food allergy. Bronchial asthma in children	
• To define basic concepts of allergic diseases in children. • To know peculiarities of the examination of patients with allergic diseases. • To define clinical syndromes specific for allergic diseases in children. • To know peculiarities of etiology, pathogenesis, principles and peculiarities of clinical diagnosis in children with food allergy and bronchial asthma. • To know classification of the forms of food allergy and bronchial asthma in children. • To know definitions of atopy, allergy, risk factors and trigger factors. • To know and to apply laboratory, instrumental and imaging methods for diagnosis of food allergy and bronchial	General characteristics and basic concepts in allergic diseases in children. Classification of food allergy and bronchial asthma in children. Food allergy in children. Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Principles of treatment. Prophylaxis. Follow up. Bronchial asthma in children. Definition. Risk factors and trigger factors. Pathogenesis. Clinical manifestations. Methods of evaluation of a child with asthma. Diagnostic criteria for bronchial asthma in children below 5 years of age and in children older than 5 years. Pulmonary function tests. Differential diagnosis. Emergency treatment and long-term treatment for children of bronchial asthma of different age. Medical follow up.

Objectives	Content units
asthma in children. • To know and to apply methods of specific and general treatment for food allergy and bronchial asthma in children of different age. • To demonstrate abilities of analysis and systematization of knowledge in different forms of food allergy and bronchial asthma in children. • To apply the knowledge gained at other disciplines for the clinical and diagnostic assessment of a child with food allergy and bronchial asthma. • To apply the gained knowledge for the analysis of case studies in children with food allergy or bronchial asthma. • To understand how to apply principles of prophylaxis for allergic diseases in children. • To generate conclusions in a case of a child with allergic disease.	Prophylaxis. Urticaria and angioedema (Quincke) in children. Etiology. Pathogenesis. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Evolutions. Prophylaxis. Follow up. Discussion of case studies – clinical peculiarities, clinical and laboratory diagnosis, treatment and evolution.
Theme (chapter) 10. Cardiovascular system diseases in children	
• To define the basic concepts of cardiovascular system diseases in children. • To know the anatomic and physiological paecularities, the clinical picture of the diseases, the methods of clinical examination of the cardiovascular system in children. • To define the clinical syndromes, characteristic for the cardiovascular system diseases in children. • To know the etiology, pathogenesis, principles and peculiarities of the clinical diagnosis in cardiovascular diseases in children. • To know and apply the laboratory, instrumental and imaging methods of diagnostic in children with cardiovascular system diseases. • To know and apply methods of general and specific treatment of cardiovascular system diseases in children. • To proove the ability to analyze and systematize knowledge in different	General characteristics and basic concepts of cardiovascular system diseases in children. The anatomo and physiological paecularities of the cardiovascular system in children. Methods of clinical examination and complementary methods of investigation. Semiology of cardiovascular system diseases and main syndromes involved. Classification of cardiovascular system diseases in children. Congenital heart defects Acute and chronic heart failure in children. Cardiac arrhythmias in children and adolescents. Primary cardiomyopathies in the child: dilatative, hypertrophic, restrictive cardiomyopathy. Acute and chronic myocarditis in children. Principles of positive diagnosis and differential diagnosis in cardiovascular system diseases in children. Principles and paecularities of differential treatment in cardiovascular system diseases in children

Objectives	Content units
types of cardiovascular system diseases. • To apply the knowledge acquired in other disciplines in the clinical and diagnostic approach of the child with cardiovascular system disorders. • To apply the knowledge acquired for the analysis of case studies in children with cardiovascular system disorders. • To formulate conclusions of the child with cardiovascular system diseases. • To understand and apply the principles of cardiovascular system prophylaxis.	Clinical cases analysis - clinical peculiarities, clinical and paraclinical diagnosis, treatment and evolution.
Theme (chapter) 11. Rheumatic diseases in children	
• To define the basic concepts of rheumatic diseases in children. • To know the anatomic and physiologic paecularities, the semiology of the diseases, the methods of clinical examination in rheumatic diseases in children. • To define clinical syndromes characteristic for rheumatic diseases in children. • To know the etiology, pathogenesis paecularities, principles and paecularities of the clinical diagnosis of rheumatic diseases in children. • To know and apply the laboratory, instrumental, and imaging diagnostic methods of children with rheumatic diseases. • To know and apply the specific and general methods of treatment of rheumatic diseases in children. • To demonstrate the ability to analyze and systematize knowledge in different forms of rheumatic diseases. • To apply the knowledge gained in other disciplines in the clinic diagnostic approach of the child with rheumatic diseases. • To apply the knowledge gained for the analysis of case studies in children with rheumatic diseases. • To formulate the conclusions of the child with rheumatic diseases.	General characteristics and basic concepts of rheumatic diseases in children. The anatomic and physiological paecularities of the locomotor system in the child. Methods of the clinical examination and complementary methods of investigation. Semiology and main syndromes of rheumatic diseases Classification of rheumatic diseases in children.. Acute rheumatic fever in children. Chronic rheumatic heart disease in children Diffuse connective tissue diseases in children. Juvenile idiopathic arthritis. Systemic lupus erythematosus. Dermatomyositis. Systemic scleroderma. Principles of positive diagnosis and differential diagnosis in rheumatic diseases in children. Principles and particularities of differential treatment in rheumatic diseases in children. Clinical cases analysis - clinical peculiarities, clinical and laboratory diagnosis, treatment and evolution.

Objectives	Content units
• To understand and apply the principles of prophylaxis and recovery in rheumatic diseases.	
Theme (chapter) 12. Pathology of the nervous system in the child	
• To know the development in ontogenesis of the nervous system, the anatomic and physiological paecularities of the nervous system in the child of different ages, the methods and paecularities of the clinical and paraclinical examination of the nervous system in the newborn, infant, the child of 1-3 years old, the pre-school, the scholar and teenager; • To know the main symptoms and neurological syndromes of the child: soft child, motor disorders, seizure, coma, intracranial hypertension, meningitis, encephalitis, cerebral oedema. • To know the methods of evaluation and evaluation of neuro-psychical development, motor deficiencies, psycho-social, behavioral, social, cognitive, emotional, methods of stimulation-education of neuro-psychic development in children. • To know the peculiarities of epileptic status, epileptic syndromes and childhood palsy, etiopathogenetic, clinical aspects, diagnostic principles, treatment (emergency and long-term therapy), supervision.	The anatomo-physiological paecularities of the nervous system in the child of different ages. Paecularities of neurological examination in newborn, infant and child of different ages. Methods of complementary examination of the nervous system in children of different ages. The main symptoms and syndromes of the nerve damage in the child: soft child, motor disorders, seizure, coma, intracranial hypertension, meningitis, encephalitis, cerebral oedema. Clinical and therapeutic approach. Methods of neuro-psychical development assessment, motor deficiencies, psycho-social, cognitive, behavioral, emotional deficiencies in children. Status epilepticus, epileptic syndromes and epilepsy referred to the child's age, clinical symptoms, the specific diagnosis, treatment and monitoring. Febrile seizures in children.
Theme (chapter) 13. Major emergencies in pediatrics.	
• To define the basic concepts of emergency medical care in pediatrics. • To know the organization of emergency medical help for children. • To know the notion of major pediatric emergency, states requiring urgent medical care • To know the anatomical and physiological paecularities of children predisposed to the development of urgent states. • To know and apply basal vital support in pediatrics • To know partial advanced pediatric	General features and basic concepts of emergency medical care in pediatrics. Organization of emergency medical assistance for children. The anatomical and physiological features of children predisposing to develop emergencies in relation to age. Indications for emmergency medical care to the child.. The main medical emergencies in terms of etiopathogenic, clinical, diagnostic. Principles of emergency medical assistance: the notion of triage, team work, diagnostic and treatment paeculiarities.

Objectives	Content units
support. • To know and apply ABCD of cardiorespiratory resuscitation in newborn, infant, child. • To proove analysis skills for systematizing knowledge in pediatric emergencies. • To apply the knowledge acquired in other disciplines in the complex clinic diagnostic approach of the child in critical condition. • To apply the knowledge acquired for the analysis of case studies in critically ill children. • To understand and apply the principles of prophylaxis of critic childhood states. • To formulate conclusions.	Critical patient recognition, cardiopulmonary arrest (CPA), and CPA-inducing syndromes. Emergency medical assistance to the child in critical condition. Basal Pediatric Life Support techniques. Pediatric advanced life support techniques. Drug administration in the cardiopulmonary arrest, shock, fever, seizures, heart rhythm arrhytmias.

VIII. PROFESSIONAL (SPECIFIC (SC)) AND TRANSVERSAL (TC) COMPETENCES AND STUDY OUTCOMES

✓ Professional (specific) (SC) competences

- SC1. Strong knowledge of the child's anatomical and physiological features in relation to age, mechanisms and factors that influence the normal growth and development of the child;
- SC2. To know the peculiarities of a pediatric history, to obtain an accurate clinical examination and the review of systems in children in relation to age, appreciation of physical (somatic) and neuro-psychical development in children of different ages
- SC3. Proper care skills training, assessing the nutritional status of children, to recommend food intake in children of different ages
- SC4. Knowledge of etiology, pathogenesis, clinical pictures of diseases in children, principles of diagnosis, treatment and prophylaxis of these diseases
- SC5. Using, interpreting and integrating laboratory data, instrumental and imaging investigations, digital technologies for correct and complete formulation of the diagnosis of the disease, performing a differential diagnosis.
- SC6. To know and apply in practice the principles of individualized disease treatment in children, medical follow-up, emergency medical assistance to the child in critical condition.
- SC7. Planning, coordinating and conducting health promotion activities and prophylactic measures to improve individual and community health.
- SC7. To know and respect the rules of medical ethics and deontology.

✓ Transversal competences (TC)

- TC1. Responsible execution of professional tasks with the application of the values and norms of professional ethics, as well as the provisions of the legislation in force. Promoting logical reasoning, practical applicability, assessment and self-assessment in decision-making.

- TC2. Performing activities and exercising the roles specific to team work. Promoting the spirit of initiative, dialogue, cooperation, positive attitude and respect for others, empathy, altruism and continuous improvement of their own activity.
- TC3. Objective self-evaluation of the need for continuous professional training, efficient use of resources and learning techniques for their own development.
- TC4. Effective use of language skills, knowledge in information technologies, research and communication skills. Fitting in interdisciplinary projects, extracurricular activities.

✓ Study outcomes

At the end of the course, the student will be able to:

1. To know the theoretical bases of puericulture, neonatology, semiology and pathologies more frequent in children;

2.To know the anatomic, physiological, functional, morphological features of the child in relation to age;

3.To know the principles of nutrition of the healthy and sick child of different ages;

4.To know the evolution of the physiological processes of child growth and development, child care, prophylaxis, social pediatrics, behavioral techniques;

5.To know the paecularities of the anamnesis, the physical examination, the laboratory results in children of different ages;

6. To know the basic principles of pediatric pathology: etiology, pathogenesis, clinical manifestations of diseases in children, contemporary methods of diagnosis, treatment and prophylaxis of these diseases.

7. To know indications and contraindications for the use of laboratory, instrumental, imaging, other pediatric diagnostic methods.

8. To have analysis skills by correlating clinical symptoms and syndromes with the results of complementary explorations, establishing positive diagnostics, performing differential diagnosis;

9. To know the indications, contraindications, the argumentation of an etiological, pathogenetic, symptomatic treatment of the diseases in children;

10. To know the methods of child disease prevention, the immunization schedule of children in the Republic of Moldova.

11. To have knowledges of current medical records: the patient observation form, the daily records.

12. Aeculiarities od medical care in the fullterm newborn, the preterm newborn, to appreciate the newborn by Apgar, Silverman, Ballard, the risk of developing sepsis, the hemolytic disease of the newborn.

13. Perform a pediatric anamnesis, anthropometric measurements with appreciation of physical development, neuro-psychic development in children of different ages.

14. To appreciate the child's nutritional status, prescribing the correct food ration to the child by age group.

15. To perform and evaluate the results of clinical examination of newborn and child of various ages, recognize vital signs, symptoms and signs of disease, major syndromes in child pathology, argument of presumptive diagnosis.

16. To be able to develop and argue the paraclinical investigation program, perform a differential diagnosis, make a definitive clinical diagnosis according to the existing classifications.

17. To be able to indicate the general and medical treatment of the child according to the established diagnosis, to be able to draw up the supervisor-recovery plan of the patient with chronic diseases, prevention and rehabilitation measures.

18. To have communication skills with the patient's family for recommendations and explanations, to promote the principles of ethics and deontology in healthcare provided to the child.
19. To possess and apply emergency medical care to the child in critical condition.
20. To be competent to present clinical cases in the field of pediatrics.
21. To possess, present and promote knowledge about the integrated approach of the healthy and sick child and the ways of caring for it.
22. To acquire the methodology for clinical and research studies;
23. To be able to evaluate objectively and to self-assess the own knowledge in the field, to assimilate new achievements in clinical disciplines.

Note. Study outcomes (are deduced from the professional competencies and formative valences of the informational content of the discipline).

IX. STUDENT'S SELF-TRAINING

No.	Expected product	Implementation strategies	Assessment criteria	Implementation terms
1.	Study from a manual, course, reading reference and notes	Reading with attention the material from the lecture course or manual on the given subject. Read questions on the subject that requires reflection. To get acquainted and to select additional information sources on the given topic. Reading the text in its entirety, with attention, writing the essential content. Formulate conclusions about the importance of the topic/subject. Composition of the logical scheme of the theme, diagnostic algorithms and treatment.	Ability to extract the essentials; ability to form conclusions; interpretative skills; workload; forming personal attitude.	Throughout the module
2.	Additional documentation on specialized electronic platforms	Electronic specialty platforms. Online self-evaluation, study of online materials on the website of the Department, expressing opinions through forum and chat	Number and duration of website entries. The ability to extract the essential, self-evaluation results. The quality of systematization of the material obtained through its own activity.	Throughout the module
3.	Report	Analysis of relevant bibliographic sources on the topic of the report. Analysis, systematization and synthesis of information on the proposed theme. Compilation of the report in	Systematization quality of the informational material obtained through self-activity. Concordance of the information with the	Throughout the module

		accordance with the actual requirements and its presentation.	proposed theme. Consistency of exposure and scientific correctness. Graphic presentation. Mode of presentation.	
4	Preparing and presenting oral presentations	Selection of the research topic, establishment of the research plan, setting the terms of realization. Establishing components of the PowerPoint project/presentation – theme, purpose, results, conclusions, practical applications, bibliography. Peer reviews. Teacher reviews.	Analysis, synthesis, generalization of own data. Concordance of the information with the subject. Formation of an algorithm of knowledge based on the obtained conclusions. Graphic presentation. Mode of presentation.	Throughout the module
5	Preparing and presentation of a case study	Selection and description of a clinical case. Analysis of the case stuy – etiology, results of laboratory and paraclinical examinations, treatment regimen. Prognosis of the studied case.	Analysis, synthesis and generalization of the obtained data through self-work. Formation of an algorithm of knowledge based on formulated conclusions.	Throughout the module
6	Preparing and presentation of a clinical case	Selection and description of a clinical case. Analysis of a clinical case – etiology, results of laboratory and paraclinical examinations, treatment regimen. Analysis and presentation of peculiarities of the selected clinical case. Analysis and presentation of complexities of the selected clinical case. Prognosis of the studied case. Presentation of a literature review based on the presented case.	Workload. Abilities of analysis, synthesis and generalization o the data obtained through self-work. Abilities to extract the essence of different subjects. Ability to generate conclusions. Formation of personal attitude. Mode of presentation.	Throughout the module
7	Applying different learning techniques	Additional documentation in the library. Work with online materials. Study from manual. Documentation on specialized electronic platforms.	Workload. The degree of penetration in the essence of different subjects. Level of scientific argumentation, quality of	Throughout the module

		Consultations. Other activities.	conclusions. Creativity elements. Demonstrating the ability to understand the problem. Formation of personal attitude.	
8	Patient report in Pediatrics	Choosing a patient. History taking, observation of the patient for 3- days continuously. Analysis and presentation of peculiarities from the selected clinical case. Analysis and presentation of complexities of the selected clinical case.	Presentation of the patient report in the presence of peers	Throughout the module

X. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-ASSESSMENT

• Teaching and learning methods used

The Pediatrics teaching process is using various methods oriented towards the efficient acquisition and achieving the objectives of the didactic process. In the theoretical lessons, modern methods (lesson-debate, lecture-conference, problem-based) are also used alongside the traditional methods (lesson-exposure, lesson-conversation, synthesis lesson). Practical forms of individual, frontal, group work, situation simulation, situational problems are used. In order to acquire deeper material, different semiotic systems (scientific, graphical and computerized language) and teaching materials (tables, schemes, micrographs, transparencies, algorithms) are used. Communication programs and out-of-school activities use Communication Technologies - PowerPoint presentations. Practical lessons are expected:

- At the patient's bed with examination and discussion of the subject patients, interpretation of laboratory and paraclinical investigations, diagnosis argument and differential diagnosis, indication of treatment with its argument, discussion of disease prophylaxis and vitality expertise.
- Involvement of beneficiaries in the presentation of clinical cases with various complicated pathologies, rare diseases.
- The practical lesson is in the form of interactive discussion, by addressing the didactic strategy centered on active and interactive learning: beneficiary-centered, multidirectional communication, with skills training, with the predominance of the formative component.
- During the course of Pediatrics, the student makes a guard in the clinic and at the Emergency Unit, where, together with the doctor, the student visits the most serious cases, provides emergency treatment, and develops practical skills.

Recommended learning methods

• **Observation** - Identifying the clinical and paraclinical particularities of the diseases in children.

• **Analysis** - Highlighting key elements. Studying each element as part of the whole. Selection of necessary information.

• **Classification** - Determination of the criteria on which classification is to be made. Disease distribution by groups according to established criteria.

- ***Applied teaching strategies / technologies (discipline-specific):***

Interactive lecture, exposure, problem, conversation, debate, individual study, work with textbooks and scientific texts, problem solving, simulation activities, mannequin practices, "Brainstorming", "Round table"; "Group Interview"; "Case Study".

- ***Methods of assessment*** (including an indication of how the final grade is calculated).

• **Current:** front and / or individual control through
-Seminars with verification of theoretical knowledge and practical skills through oral interview,
• simple and multiple- test (pre-test, post-test),
• solving problems / exercises,
• Clinical Case and patient presentations,
• Practical demonstration,
• performing role-plays on the topics discussed,
• control / colloquium work,
• medical documentation - the pediatric observation sheet.

- ***Final*** evaluation of knowledge is implemented in the form of a final exam which consists of three stages: first stage represents the average mark for theoretical knowledge in the assigned year of studies; second – the clinical skills assessment (practical exam on a real patient); the therd stage - written test in the electronic monitoring system (SIMU) of the SUMF "NicolaeTestemitanu". Students whose annual mark is lower than 5, are not admitted to the Pediatrics final examination, as well as the students who did not recover the absences in practical lessons.

Clinical skill assessment is based on real patients. Each student has 30 minutes to examine patients with different diseases and then present to the examiner the history and complete data on physical examination, make a presumptive diagnosis, set an investigation plan, makes a diagnosis and then develops a treatment plan. Practical examination is scored between 10 and 0.

A written test, approved in advance at the meeting of the Pediatric Department and presented to students at least one month before the session, is comprised of 100 questions (for each topic from Pediatrics course), of which 40 have are single choice questions and another 60 are multiple choice questions. Students have two astronomic hours to answer this test. The test is graded from 0 to 10 by scanning with a computer system "Test – corrector" developed at the State Medical and Pharmaceutical University "NicolaeTestemitanu".

To pass the exam, students have to obtain at least a 5 at each part of the final examination. Otherwise, the exam is not validated. All exams are held in the presence of at least two people from teaching staff.

The final mark consists of the annual mark (coefficient 0.3), practical skills test (coefficient 0.2) and written test (coefficient 0.5). Knowledge assessment is made for each compartment separately with marks from 10 to 1 rounding up to tenth and hundredth.

The average annual mark and the marks of all stages of final examination (practical skills assessment and written test) - are expressed in numbers according to the mark scale (see the table below), and the final mark obtained is expressed in number with two decimals, which is transferred to student's record-book.

Method of mark rounding at different assessment stages

Intermediate marks scale (annual average, marks from the examination stages)	National Assessment System	ECTS Equivalent
1,00-3,00	**2**	**F**
3,01-4,99	**4**	**FX**
5,00	**5**	**E**

5,01-5,50	**5,5**	
5,51-6,0	**6**	
6,01-6,50	**6,5**	**D**
6,51-7,00	**7**	
7,01-7,50	**7,5**	**C**
7,51-8,00	**8**	
8,01-8,50	**8,5**	**B**
8,51-8,00	**9**	
9,01-9,50	**9,5**	**A**
9,51-10,0	**10**	

Absence on examination without good reason is recorded as "absent" and is equivalent to 0 (zero). The student has the right to have two re-examinations.

XI. RECOMMENDED LITERATURE:

A. Compulsory

1. Barbara Bates. Guide to Physical Examination and History Taking, 13th Edition, Lippincott Company. 2020, p. 1172.
2. Kliegman: Nelson Textbook of Pediatrics, 21th edition, 2019, p. 4264.
3. Gomellas Neonatology Textbook, 8 th Edition 2021, p.1472.
4. Lection on the theme.

B. Additional

1. Susan M., White, Andrew J. Washington Manual TM of Pediatrics, The, Second Edition, 2016, p.542, Lippincott Williams & Wilkins.
2. Colin D. Rudolph. Rudolphs Pediatrics, The 22 nd Edition, 2011, p.2488.
3. Zitelli and Davis Atlas of Pediatric Physical Diagnosis 7th Edition, 2017, p.1032.
4. Maydannic V.G. Propedeutics of pediatrics. Kharkiv National Medical University. 2010, p.348