

**Discussed and approved
at the methodological meeting
of the Department of Pediatrics No 1
Protocol No. 1 of " 30 " 08 2023.
Head of Department**

**SYLLABUS FOR THE ACADEMIC DISCIPLINE
PRACTICE IN SIMULATION MEDICINE "PEDIATRICS"**

1. General information	
Name of the faculty	Medical faculty No.1
Educational program	22 "Healthcare", 222 "Medicine", second level of higher education (master's degree), full-time education
Academic year	2023/2024
Name of discipline, code	Practice in simulation medicine "Pediatrics" EC 2.11
Department (name, address, telephone number, e-mail)	Department of Pediatrics № 1, 79059, Lviv, Pylypa Orlyka str, 4, phone/fax: +38 (032) 2938250; kaf_pediatrics_1@meduniv.lviv.ua
Head of the department (contact e-mail)	Prof. Nyankovsky S.L. :+38(032)2917851; nianksl@gmail.com
Studying year	6-th
Semester	11-12
Type of discipline / module	an obligatory component of the educational and professional training program
Teachers	Voznyak Andriy, Ph.D., Associate Professor likar.voznjak@gmail.com Tutusa Andriy, Assistant of Professor a.tytusa@gmail.com Gorodulovska Marta Assistant of Professor g.marta@ukr.net
Erasmus yes\no	No
The person responsible for the syllabus	Voznyak Andriy, Ph.D., Associate Professor likar.voznjak@gmail.com
Number of credits ECTS	2
Number of hours (lectures/ practical classes/ independent work of students)	60 (0 - lectures/ 35 - practical classes/ 25 - independent work)
Language of study	English
Information about consultations	According to the schedule during the academic year
Address, telephone number and work regulations of the clinical base	"Lviv City Children's Clinical Hospital " tel: +380322931888

2. Short annotation to the course

Critical conditions involving dysfunctions of vital organs and systems in children develop more rapidly than in adults, and therefore require urgent, coordinated action by medical personnel. The discipline "Practice in Simulation Medicine (Pediatrics)" is aimed at mastering by 6th year students the theoretical principles and practical skills of providing emergency care in case of various emergency conditions in children, taking into account their age and anatomical-physiological features.

The curriculum of the discipline Practice in simulation medicine "Pediatrics" includes modern achievements of emergency pediatrics (diagnosis, treatment and prevention of emergency conditions in children), aimed at reducing child morbidity and mortality.

During studies, a student should achieve a high level of not only theoretical but also practical professional training, understanding of general concepts and use of appropriate methodological approaches. The formation of comprehensive knowledge regarding the various clinical variants of the course and complications of the most common diseases in children is expected, the ability to plan an urgent examination of a child who needs urgent care, and to interpret the results obtained, make a differential diagnosis and establish a clinical diagnosis.

A student should be able to apply current evidence-based medicine in determining patient management tactics. Particular attention is paid to the diagnosis of emergencies and improvement of giving emergency aid skills. Current issues of differential diagnosis and emergency care of the most common emergency conditions in children (acute respiratory and cardiac failure, circulation, coma, etc.) are offered for students to study and discuss.

3. The purpose and objectives of the course

1. The **purpose** of teaching the educational discipline Practice in Simulation Medicine "Pediatrics" is acquisition and deepening of knowledge, improvement of practical skills, abilities and other competences in matters of providing emergency care to children, diagnosis, treatment, prevention and dynamic monitoring of children with emergency conditions.

2. The main **task** of studying the discipline Practice in Simulation Medicine "Pediatrics" is to form students' knowledge of the etiology, pathogenesis, clinical manifestations, diagnostics, principles of emergency care and treatment of the most common urgent and life-threatening conditions in children.

As a result of studying the discipline "Pediatrics" student **should know:**

- Etiological factors of the most common pediatric emergencies;
- Pathogenesis of the most common pediatric emergencies;
- The clinical course and the main clinical symptoms, modern methods of diagnostics and treatment of the most common pediatric emergencies;
- Methods of emergency care and resuscitation (pre-hospital) in critical conditions caused by acute diseases and accidents;
- Peculiarities of resuscitation in children and newborns;
- Principles of emergency care, further treatment and monitoring for the most common emergencies in children.

As a result of studying the discipline "pediatrics" student **should be able to:**

- Take medical history;
- Examine a sick child;
- Make a preliminary clinical diagnosis;
- Analyze typical and not typical variants of diseases and complications in children that may require emergency care
- Plan an examination of a sick child;
- Interpret data of laboratory and instrumental tests in appropriate clinical emergencies
- Conduct a differential diagnosis, substantiate and formulate a clinical diagnosis of the most common emergency conditions in children
- Determine tactics and provide emergency care in specific clinical situations
- Prescribe a further treatment
- Determine the prognosis of emergency and intensive care

3. Competences and learning results, the formation of which is facilitated by studying of the discipline (general and special competencies):

According to the standard of higher education, discipline provides students with competences:

Integral competence - an ability to solve complex problems in the field of professional medical activity, conduct original research and carry out research and innovative activity in the field of health care based on the deep rethinking of the existing and creation of a new holistic theoretical or practical knowledge and/or professional practice.

General:

- GC1 The ability to abstract thinking, analysis, and synthesis; Ability to learn and be modernly trained.
- GC2 Ability to learn and master modern knowledge
- GC3 Ability to apply knowledge in practical situations
- GC4 Knowledge and understanding of subject area and understanding of business professional activity
- GC5 The ability to adapt and act in a new situation
- GC6 Ability to make an appropriate decision
- GC7 Ability to work in a team
- GC8 Interpersonal skills interaction
- GC9 Ability to communicate in the State language both orally and in writing.
- GC10 Ability to communicate using foreign language
- GC11 Skills in using information and communication technologies
- GC12 Certainty and perseverance on the tasks and responsibilities

- GC13 The ability to act socially responsibly and deliberately
- GC14 The ability to act based on ethical considerations

Special (Professional):

- SC1 Skills of inquiry and clinical examination of the patient.
- SC2 Ability to determine the required list of laboratory and instrumental studies and assess their results.
- SC3 The ability to establish preliminary and clinical diagnoses.
- SC4 Ability to determine the necessary mode of training, work and recreation of healthy children and in the course of treatment of diseases.
- SC5 Ability to determine an appropriate diet for healthy children and in the course of the treatment of diseases
- SC6 Ability to determine an appropriate diet for the principles and character of treatment of diseases.
- SC7 The ability to diagnose emergency conditions
- SC8 Ability to determine the tactics of emergency medical care.
- SC9 Skills of emergency medical care
- SC10 The skills of performing medical manipulations
- SC11 The ability to carry out hygienic and preventive measures
- SC12 Ability to determine the tactics for patients, who need medical follow-up
- SC13 The ability to fill in medical documents
- SC14 The ability to assess environmental, social, economic, and biological influences on health of the individual, family, population

4. Prerequisites of the course

Information on the disciplines, basic knowledge and learning results required for successful study and acquisition of competencies in this discipline is indicated.

- Medical Biology
- Medical informatics
- Normal and Pathological Anatomy
- Normal and Pathological Physiology
- Histology, Cytology and Embryology
- Biological and bioorganic chemistry
- Microbiology, virology, and immunology
- Pharmacology
- Hygiene and Ecology
- Propaedeutic Pediatrics
- Nursing practice
- Radiology

5. Program learning outcomes (PLO).

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

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

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

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

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

PLO 6. Establish a final clinical diagnosis by making an informed decision and analysis of the obtained

subjective and objective data of clinical, additional examination, differential diagnosis, adhering to the relevant ethical and legal norms, under the supervision of a physician-manager in a health care institution.

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

PLO 8. To determine the main clinical syndrome or what causes the severity of patient condition by making an informed decision under various circumstances (at healthcare facility, or outside it), including in conditions of emergency, in the battlefield, in conditions of lack of information and limited time).

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

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

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

PLO 15. To organize the provision of emergency medical aid and medical evacuation to the population and military in emergency situations and hostilities, including in field conditions.

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

PLO 18. Determine the state of functioning and limitations of a person's vital activity and the duration of disability with the preparation of relevant documents in a healthcare facility based on data on the disease and its course, peculiarities of a person's professional activity, etc. Keep medical records for patients and certain population groups on the basis of regulatory documents.

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

PLO 24. Organize the necessary level of personal safety (own and those being cared for) in the event of typical hazardous situations in the individual's field of work.

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

List of learning results

Learning results code	The scope of the learning results	Reference to the code of the competence matrix
The code is created by filling in the syllabus (category: Kn- Knowledge, Sk- Skill, C-competences, AR - autonomy and responsibility)	The learning outcomes define what the student must know, understand and be able to perform, after completing the course of study. The learning outcomes are based on the set learning objectives. For crediting the discipline, it is necessary to certify that each learning outcome has been achieved.	Symbol for the Programme Learning Outcome code in the Higher Education Standard
Kn-1 Sk-1 C-1	To know the specific characteristics of the child's at different age periods, to know the methods and standard schemes of description, collection of genealogical information, preparation of the birth report, physical examination, stages of examination of psychomotor and physical development of the child. To be able to talk to a child-and/or her parents (guardians), based on algorithms and standards. Use the principles of communication with the parents of children. Using standard techniques to carry out	PLR1

AR-1	<p>physical examination of a patient. Be able to examine psychomotor and physical development of the child. Able to assess the quality of care and feeding of infants and nutrition of children. Be able to conduct a comprehensive assessment of child health.</p> <p>Communicate effectively with patient and/or his parents (care givers).</p> <p>Transfer information about the child health to the relevant medical documentation.</p> <p>Be responsible for qualitative collection of information obtained during conversation with patient, survey, examination, palpation, percussion of organs and systems, timely assessment of the child's health condition, psychomotor and physical development of the child and for taking appropriate measures.</p>	
Kn-2 Sk- 2 C-2 AR -2	<p>Know the standard methods of laboratory and instrumental examinations</p> <p>Know how to perform a laboratory and instrumental examination of a patient using standard techniques, analyze the results of laboratory and instrumental investigations and evaluate the diagnosis of the patient on this basis</p> <p>Formulate and communicate to the patient and / or his/her parents (guardians), physicians about the required list of laboratory and instrumental examinations</p> <p>Be responsible for the decision-making process regarding the evaluation of laboratory and instrumental results</p>	PLR2
Kn - 3 Sk- 3 C - 3 AR - 3	<p>Know the algorithm for disease diagnosis; algorithms for identifying leading symptoms or syndromes; initial and clinical diagnoses; methods.</p> <p>Be able to make an informed decision about the identification of a leading clinical symptom or syndrome; be able to make an initial and clinical diagnosis.</p> <p>Based on regulatory documents, maintain medical documentation of the patient (outpatient/inpatient chart, etc.).</p> <p>Be responsible for making informed decisions and actions regarding the correctness of the established initial and clinical diagnosis, in compliance with ethical and legal standards</p>	PLR3
Kn - 4 Sk - 4 C - 4 AR -4	<p>Know the algorithms and standard schemes for determining the regimen of education, work and leisure activities for healthy children and for medical treatment, based on the initial and clinical diagnosis</p> <p>Be able to determine the necessary regime for education, work and rest for healthy children and, based on the initial and clinical diagnosis, to make an informed decision about the treatment of the disease</p> <p>Formulate and communicate to the patient and / or their parents (guardians) and caregivers opinions on the necessary regime of education, work and leisure time for healthy children and in the treatment of the disease</p> <p>Be responsible for ensuring that the education, work and leisure regime is appropriate for healthy children and for the treatment of illnesses</p>	PLR4
Kn - 5 Sk - 5	<p>Have specialized knowledge of algorithms and standard schemes for the prescribing of nutrition for healthy children and in the treatment of diseases</p> <p>Be able to identify the nature of the food intake for healthy children, and on the basis of the initial and clinical diagnosis, the</p>	PLR5

C - 5 AR - 5	nature of the food intake for treatment of diseases Formulate and convey to the patient and / or their parents (guardians), professionals, opinions on the nutrition of healthy children and in the treatment of diseases Be responsible for ensuring that food for healthy children and for treating illnesses is appropriately determined	
Kn - 6 Sk - 6 C - 6 AR - 6	Have specialized knowledge of algorithms and standard treatment regimens Be able to determine the peculiarities of nutrition of healthy children and those who in process of treatment according to preliminary and clinical diagnoses Formulate and communicate to the patient and / or their parents (guardians), professionals own findings on the principles and nature of treatment Be responsible for deciding on the principles and nature of treatment	PLR6
Kn - 7 Sk - 7 C - 7 AR - 7	Know the standard procedures for examining children in non-emergency situations (at home, on the street, in health care facilities) in the context of lack of information. Be able to assess the child's condition and identify the underlying clinical syndrome (or the severity of the injury/casualty) in the context of lack of information, using standard methods, by making an informed decision Use appropriate ethical and legal standards to make an informed decision about the assessment of the severity of the child's condition, the diagnosis and the organisation of appropriate medical treatment depending on the condition, and to fill in the relevant medical documentation. Be responsible for the timeliness and effectiveness of medical procedures for the diagnosis of non-critical conditions.	PLR7
Kn - 8 Sk - 8 C - 8 AR - 8	Know the legal framework for the provision of emergency medical care, in particular the Law of Ukraine "On Emergency Medical Care". Have specialist knowledge of children's illnesses; principles of emergency medical care. Be able to identify the principles and tactics of emergency medical care; carry out organizational and diagnostic procedures for treatment and life-saving treatment. Formulate and communicate to the patient or their legal representative the need for non-emergency care and obtain approval for medical treatment. Be responsible for the correctness of the determination of the emergency condition, its degree of severity and the tactics for emergency medical treatment.	PLR8
Kn - 9 Sk - 9 C - 9 AR - 9	Awareness of algorithms for emergency medical care in children's emergencies Know how to provide emergency medical care in an emergency Explain the need for and procedure for emergency treatment. Be responsible for the timeliness and quality of emergency medical care	PLR9
Kn - 10 Sk - 10 C - 10 AR - 10	Have specialized knowledge of medical manipulation algorithms Be able to perform medical manipulation Provide evidence to the patient and parent(s), caregiver(s), physician(s) about the need for medical manipulation Be responsible for the quality of medical treatment	PLR10
Kn - 11	Know the system of hygienic and prophylactic measures among the	

Sk - 11	enrolled population. To know the principles of organization of dispensary treatment of different groups of children subject to dispensary treatment.	PLR11
C - 11	Know how to form groups of children to be treated. Know how to create a plan for the treatment of different groups.	
AR - 11	On the basis of the results of the examination and analysis of children's health status, the environment, know the principles of submitting analytical information to local management bodies and health care; on the basis of the measures of elimination of adverse effects on children's health. To be responsible for the timely and proper implementation of measures to assess the health status of children, to improve the health of certain contingents, to improve the environment	
Kn - 12	To know the relevant ethical and legal standards for the examination of the population; examination tactics and principles of primary and secondary prophylaxis	PLR12
Sk - 12	Know how to assess the health status of patients and adherents; arrange for follow-up examinations	
C - 12	Organize outpatient observation of patients (secondary prevention of diseases) and healthy persons who are subject to dispensary supervision (primary prevention of diseases).	
AR - 12	Be responsible for the quality of the organization of dispensary supervision of certain contingents	
Kn - 13	Be aware of the official document management system in the doctor's work, including modern computer technology	PLR13
Sk - 13	Be able to identify the source and location of required information depending on its type; be able to process information and analyse it	
C - 13	Gain the required information from a given source and make appropriate conclusions on the basis of this analysis	
AR - 13	Be responsible for the completeness and quality of the analysis of information and conclusions on the basis of this analysis	
Kn - 14	Know the socioeconomic and biologic determinants that affect children's health; types and methods of prevention to prevent the negative impact of socioeconomic factors on children's health	PLR14
Sk - 14	Know how to assess the link and impact of socio-economic and biologic factors on the health of the individual and the family. Be able to plan prophylactic measures to prevent the negative impact of socio-economic factors on the health of the child population and its particular groups.	
C - 14	Formulate conclusions on the health status of the child population, based on data on the relationship to environmental factors, socio-economic and biologic determinants.	
AR - 14	To be responsible for making immediate conclusions on the health status of the child population based on data on the negative impact of environmental, socio-economic and biological determinants, for making immediate suggestions for appropriate preventive measures.	

6. Format and scope of the course

Type of activity	Number of hours	Number of groups
Lectures (full-time lesson)	0	According to aschedule
Workshops (full-time lesson)	35	According to aschedule
Self-studying (full-time lesson)	25	According to aschedule

7. Topic and contents of the course

Code of the the classes	Topic	Content of the studying	Learning results code	Teacher
W-1 (workshop 1)	Cardiopulmonary resuscitation for children	General signs of a threatening condition in a child. Current recommendations for cardiopulmonary resuscitation of children. Determination of the level of consciousness. Checking for breathing and patency of the respiratory tract. Signs of cardiac arrest and circulatory failure. The basic principles of resuscitation in children of different ages. Lung ventilation during resuscitation with a resuscitation bag or mouth-to-mouth breathing. Algorithm of actions in case of cardiac arrest. Indications for chest compressions, medication and use of a defibrillator. Treatment of respiratory and cardiovascular failure. Maintaining the appropriate blood circulation. Recovery position.	PLO 1-10 PLO 14-15 PLO 17-18 PLO 21 PLO 24-25	Associate Professor. Voznyak Andriy. Assistant of Professor Tutusa Andriy, Gorodulovska Marta
W-2 (workshop 2)	Emergency care for acute respiratory failure in children	Acute respiratory failure in children, classification. Main clinical symptoms and syndromes of acute stenotic laryngotracheitis, acute epiglottitis, extraneous body, severe attack of bronchial asthma, bronchiolitis, pneumonia. Comparison of the clinical features and clinical course. The data of laboratory and instrumental investigations to identify diseases that lead to acute respiratory failure. Diagnosis and differential diagnosis. Emergency treatment. Patient management tactics. Algorithm of actions in case of tension pneumothorax.	PLO 1-10 PLO 14-15 PLO 17-18 PLO 21 PLO 24-25	Associate Professor. Voznyak Andriy. Assistant of Professor Tutusa Andriy, Gorodulovska Marta
W-3 (workshop 3)	Diagnosis and emergency care of life-threatening heart rhythm disorders in children. Emergency care for children with signs of acute heart failure	Sinus tachycardia. Paroxysmal supraventricular tachycardia. Atrial fibrillation and flutter, ectopic atrial tachycardia, AV nodal tachycardia, ventricular tachyarrhythmia, Wolff-Parkinson-White syndrome. Long Q-T interval syndrome, complete atrioventricular block, cardiac arrhythmias due to digoxin toxicity. Classification of rhythm and conduction disorders in children. Clinical manifestations and ECG	PLO 1-10 PLO 14-15 PLO 17-18 PLO 21 PLO 24-25	Associate Professor. Voznyak Andriy. Assistant of Professor Tutusa Andriy, Gorodulovska Marta

		<p>criteria. Additional methods of examination. Algorithm of emergency care and further treatment of children with rhythm and conduction disorders.</p> <p>Characteristics of the main antiarrhythmic drugs used in pediatric practice. Risk of sudden cardiac death in children with supraventricular tachycardia The Stokes-Adams attack. Clinical manifestations of heart failure in children of different ages.</p> <p>Management tactics for myocarditis, endocarditis, pericarditis, cardiomyopathies, congenital and acquired heart defects in children. Emergency treatment in acute heart failure.</p>		
W-4 (workshop 4)	Basic principles of management children with different types of shock	<p>Definition and distinction of types of shock (cardiogenic, hypovolemic, infectious-toxic (septic), anaphylactic, neurogenic shock and shock due to acute endocrine insufficiency). The main clinical symptoms. Diagnostic algorithm: laboratory, instrumental methods of examination, consultations of specialists.</p> <p>Differential diagnosis. Treatment tactics and emergency care.</p>	<p>PLO 1-10</p> <p>PLO 14-15</p> <p>PLO 17-18</p> <p>PLO 21</p> <p>PLO 24-25</p>	<p>Associate Professor. Voznyak Andriy.</p> <p>Assistant of Professor Tutusa Andriy, Gorodulovska Marta</p>
W-5 (workshop 5)	Coma and impaired consciousness in the pediatric patient. Principles of diagnosis and emergency care	<p>Disorders of consciousness: principal pathogenetic mechanisms. Diseases that can lead to the development of coma in children. Diagnostic algorithm for disorders of consciousness. Examination of an unconscious patient.</p> <p>Determination of severity of neurological disorders and monitoring. Peculiarities of the clinical course of post-hypoxic coma, hyperosmolar coma, diabetic coma, hypoglycemic coma, hepatic coma, uremic coma, coma due to infection and inflammatory lesions of the central nervous system.</p> <p>Differential diagnosis. Emergency care of comatose patient. Basic principles of treatment.</p>	<p>PLO 1-10</p> <p>PLO 14-15</p> <p>PLO 17-18</p> <p>PLO 21</p> <p>PLO 24-25</p>	<p>Associate Professor. Voznyak Andriy.</p> <p>Assistant of Professor Tutusa Andriy, Gorodulovska Marta</p>
SS1 (self-studying 1-13)	Management of a pediatric casualty during warfare	<p>Principles of first aid. Initial examination of an injured child. Stop of the bleeding (tourniquet, hemostatic bandage). Restoration of airway patency. Detection of chest</p>	<p>PLO 1-10</p> <p>PLO 14-15</p> <p>PLO 17-18</p>	<p>Associate Professor. Voznyak Andriy.</p> <p>Assistant of</p>

		injuries. Prevention of hypothermia. The procedure for moving to the shelter sector.	PLO 21 PLO 24-25	Professor Tutusa Andriy, Gorodulovska Marta
SS2 (self-studying 2)	Emergency care for hyperthermia and seizures in children	Causes and mechanisms of hyperthermia and convulsions in children. Main clinical symptoms of convulsions in children. Types of fever. Diagnostic criteria. Classification. Clinical types of convulsions. Data of laboratory and instrumental investigations. Therapeutic tactics for seizures in children. Emergency care.	PLO 1-10 PLO 14-15 PLO 17-18 PLO 21 PLO 24-25	Associate Professor. Voznyak Andriy. Assistant of Professor Tutusa Andriy, Gorodulovska Marta
SS3 (self-studying 3)	Poisoning in children. Principles of diagnosis and emergency care.	Poisoning with carbon monoxide, medicines, food, household chemicals - clinical course and algorithm of emergency care.	PLO 1-10 PLO 14-15 PLO 17-18 PLO 21 PLO 24-25	Associate Professor. Voznyak Andriy. Assistant of Professor Tutusa Andriy, Gorodulovska Marta
SS4-8 (self-studying 4-8)	Coincides with topics of lessons (W 1-12)	In accordance with the allotted time, students independently prepare for workshops	PLO 1-10 PLO 14-15 PLO 17-18 PLO 21 PLO 24-25	Associate Professor. Voznyak Andriy. Assistant of Professor Tutusa Andriy, Gorodulovska Marta

The following teaching methods are used to develop skills:

- verbal/oral (lecture, explanation, story);
- visual (observation, illustration, demonstration);
- practical (near the patient's tub, work in the admission department, departments of functional diagnostics, rehabilitation, manipulation, on simulators, etc.);
- explanatory-illustrative or information-receptive, which involves the presentation of ready-made information by the teacher and its assimilation by students.

8. Verification of learning results

Regular control is carried out during the training sessions and is intended to verify the students' mastery of the educational material (it is necessary to describe the forms of the regular control during the training sessions). Forms of assessment of in-service training activities must be standardized and include the control of theoretical and practical training. The final grade for the in-service training is awarded on a 4-th grade (national) scale

The practical sessions in the Pediatrics module are structured and involve a comprehensive assessment of all types of learning activities (teaching assignments) that students undertake during the practical session:

- The student answers the tests (tests for the topic of the class, format A, not less than 10 pieces).
- Answers standardized questions, knowledge of which is necessary for understanding the current topic.
- Demonstrates knowledge and skill of the practical skills according to the topic of the practical exercise
- Solves a situational case study on the topic of the lesson

Criteria for evaluation of educational activities

Excellent ("5") – the student answered correctly 90-100% of the A format test (from the database "Step-2"). Correctly, clearly, logically corresponds to all standardized questions of the current topic.

Closely binds theory with practice and demonstrates the correct implementation of practical skills. Fluent in interpretation of the laboratory test results, adepts at prescribing appropriate examination methods. Makes differential diagnosis. Solves clinical case with higher level of difficulty and knows how to compile the material.

Good ("4") - the student answered correctly 70-89% of the of A format test (from the database "Step-2"). Correctly and essentially responds to all standardized questions of the current topic. Demonstrates knowledge of practical skills. Correctly uses theoretical knowledge in solving practical problems, conducts a differential diagnosis. Capable to solve easy and medium complexity clinical cases.

Possesses all necessary practical skills and techniques to perform their uses, more than the required minimum.

Satisfactory ("3") - the student answered correctly 50-69% of the A format test (from the database "Step-2"). Incomplete, with the help of additional questions answers all the standardized questions on the current topic. Cannot independently makes a clear logical answer. While the student is answering and demonstrating practical skills, he makes mistakes. Can solve only the easiest situational tasks. Has knowledge of only the minimum methods of investigations.

Unsatisfactory ("2") - the student answered correctly 50% of the test of A format.

Does not know the material of the current topic, cannot build a logical response, does not respond to additional questions, and does not understand the content of the material. Makes significant, gross mistakes when answering and demonstrating practical skills.

Evaluation of the students' independent work for preparation for the practical classes is carried out during the current control of the topic at the appropriate workshop.

Current control

Learning results code	Code of the type of the classes	Verifying learning outcomes method	Enrollment criteria
Kn-1-14, Sk-1-14; C – 1-14 AR -1-14	W 1-5	<p>The initial stage - the answers to the tests. In the first practical session tests verify the knowledge of pediatrics in the disciplines of prerequisites.</p> <p>The main phase of the practicum involves working in the clinic environment with the patient. The control of this stage is carried out by means of the test by the test taker (skills and abilities of the student in work with the sick child, documentation, interpretation of the results of the examinations, etc.).</p> <p>Final stage - solving a typical situational problem; summing up of the previous stages; familiarization with the evaluations; assignment for the next session.</p> <p>Self-study is performed by the student independently outside the classroom. It is evaluated on a summative basis.</p>	<p>"5" - correct, clear logical answer to all standardized questions of the current topic; correct performance of practical skills of mastering the methods of examination of the patient; brief interpretation of survey results; differential diagnosis.</p> <p>"4" - correctly and essentially answers all standardized questions of the current topic; demonstrates performance/knowledge of practical skills; differential diagnosis.</p> <p>"3" - incompletely, with the help of additional questions, answers all standardized questions of the current topic; cannot independently build a clear, logical answer; makes mistakes when answering and demonstrating practical skills.</p> <p>"2" - does not know the material of the current topic, can not formulate a logical answer, does not answer additional questions, does not understand the content of the material; makes significant, gross mistakes when answering and demonstrating</p>

			practical skills. IW is assessed, in addition to taking into account in current classes, when it is performed or not at the end of each semester
Kn-1-14, Sk- 1-6; 11-14, C-1,3,5,12 AR-1-3,6-1 4	IW 1-3	Control of execution of independent work, which is provided for in the topic along with classroom work, is carried out during the current control of the topic at the corresponding classroom session. Mastering of topics that are assigned only to independent work is controlled during by the final control	"Passed" or "Failed" at the end of semester

Final control

General evaluation system	Participation in the work during the semester - 100% on a 200-point scale	
Rating scales	traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale	
Admission to final control	The student attended all practical (laboratory, seminar) classes and received at least 120 points for current performance	
Type of final control	Methods of final control	Enrollment criteria
Credit	All topics for current control submitted. Grades from the 4-point scale are converted into points on a multi-point (200-point) scale in accordance with the provision "Criteria, rules and procedures for evaluating the results of student learning activities"	The maximum number of points is 200. The minimum number of points is 120

The calculation of points is carried out based on the student's grades according to the 4-th grade (national) scale during the study of the discipline, by calculating the arithmetic mean (AM) rounded up to two decimal places. Resulting value is converted into points according to multipoint scale as follows: $X = (CA \times 200) : 5$

9. Course policy

It is based on the full implementation of the curriculum of the course (attending lectures and workshops, working academic debts up, performing independent tasks), academic integrity, lack of plagiarism.

Observance of academic integrity by students:

- Independent performance of educational tasks, tasks of current and final control of results;
- Links to sources of information in the case of the use of ideas, developments, statements, information;
- Observance of the legislation on copyright and related rights.
- Providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information.

10. References

Main sources

1. Nelson textbook of Pediatrics 21st Edition by Robert M. Kliegman, Joseph W. St Geme III, et al. Philadelphia: Elsevier, 2020.
2. Marcadante K., Kliegman R.M., Behrman R.E., Jenson H.B. Nelson Essentials of Pediatrics, 8 ed., Saunders, 2018.- 832 p.
3. Pediatric Secrets / 6th ed. by Polin R.A., Ditmar M.F. / Mosby, 2015.- 752 p.
4. Frank G., Zaoutis L., Catalozzi M., Zaoutis L.B., Shah S.S. The Philadelphia guide: inpatient pediatrics / LWW, 2019.- 608 p.

Additional sources

1. Park M, Salamat M. Park's pediatric cardiology for practitioners. 7th ed. Amsterdam: Elsevier; 2020. 690 p.
 2. Petty RE, Laxer R, Lindsley C, et al. Textbook of pediatric rheumatology. 8th ed. Amsterdam: Elsevier; 2020. 768 p.
 3. Pediatric allergy: principles and practice. 4 ed. Leung D, Akdis C, Bacharier L (eds).Amsterdam: Elsevier; 2020. 440 p.
 4. Pediatric nephrology. 8th ed. Emma F, Goldstein SL, Bagga A, et al (eds). New York (NY): Springer; 2022. 2500 p.
- Waseem M. Pediatric pneumonia [Internet]. New York (NY): Medscape, LCC; 2020; [updated Jun 05, 2020; cited 2022 May 16]; [39 p]. <https://emedicine.medscape.com/article/967822-overview>
5. COVID-19: special considerations in children. Bethesda (MD): NIH; 2022; [updated: August 8, 2022; cited August 15, 2022];
 6. Global strategy for asthma management and prevention [Internet]. Fontana (WI): GINA, 2022; [updated 2022; cited 2022 Aug 17]. Available from: <https://ginasthma.org/gina-reports/>

11. Equipment, logistics and software of the discipline / course

- Training program of the discipline
- Plans of practical classes, and independent work of students
- Methodical instructions for practical training for students
- Methodical instructions for practical training for teachers
- Methodical materials that provide independent work of the student
- MCQs and cases for practical classes
- Clinical cases for practical classes

12. Additional information

Materials related to the educational and organizational process (thematic plan, schedule of classes, schedules of consultations and work up of missed classes) are available on the website of the department:

<https://new.meduniv.lviv.ua/kafedry/kafedra-pediatriyi-1/>

Educational and methodical materials (topic guidelines) for preparation for practical classes, independent work, self-control, abstracts of lectures are available on the MISA platform in the section "Department of Pediatrics №1 on the website of LNMU named after Danylo Halytsky:

<http://misa.meduniv.lviv.ua/course/view.php?id=341>

The work plan of the student scientific group with the lists of student scientific society members are posted at the beginning of the academic year on the website of the department..

<https://new.meduniv.lviv.ua/kafedry/kafedra-pediatriyi-1/>

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Head of the Department Nyankovsky S.L. the Doctor of Science, Professor _____