

**Syllabus of the discipline "Pediatrics and Neonatology"  
for 5<sup>th</sup> year students**

**1. General information**

<b>Name of the faculty</b>	Medical faculty No.2
<b>Educational program</b>	22 "Healthcare", 222 "Medicine", second level of higher education (Master's Degree), full-time education
<b>Academic year</b>	2023/2024
<b>Name of discipline, code (e-mail address on the website of Danylo Halytskyi LNMU)</b>	Pediatrics and Neonatology– <b>OK 26.1</b>
<b>Department (name, address, telephone number, e-mail)</b>	Department of Pediatrics № 2, 79059, Lviv, Pylypa Orlyka str, 4, phone / fax: +38 (032) 2938250; Kaf_pediatrics_2@meduniv.lviv.ua
<b>Head of the department (contact e-mail)</b>	MD, Prof. Lesya BESH +38 (032) 2938250 lesya.besh@gmail.com
<b>Studying year</b>	5th
<b>Semester</b>	9-10
<b>Type of discipline / module</b>	an obligatory component of the educational and professional training program
<b>Teachers</b>	Dmytro DOBRYANSKY (MD, Professor), dmytro_d@hotmail.com Olga TROYANOVSKA (PhD, Associate Professor), olyat@litech.net Olena BORYSIUK (PhD, Associate Professor), olenabora@gmail.com Anna MENSHYKOVA (PhD, Assistant of Professor), anna.menshikova.ua@gmail.com
<b>Erasmus yes/no</b>	No
<b>The person responsible for the syllabus</b>	Olena BORYSIUK, Ph.D., Associate Professor (olenabora@gmail.com) +380964263907
<b>Number of credits ECTS</b>	3,5
<b>Number of hours (lectures/ practical classes/ independent work of students)</b>	105 hours: 10 – lectures, 43 - practical classes, 52 - independent work of student
<b>Language of study</b>	English
<b>Information about consultations</b>	According to the schedule during the academic year
<b>Address, telephone number and work regulations of the clinical base</b>	Lviv Regional Clinical Hospital, Lviv, Yuriy Rufa str. 1 (Chernihivska str.5), tel:+380322757611 Western Ukrainian Specialized Children's Medical Center, Lviv, Dnisterska str. 27, tel: +38 032 2702207

**2. Short annotation to the course**

General characteristics, brief description of the course, features, benefits.

Studying the discipline "Pediatrics" the 4th year-students consolidate knowledge gained in the classroom at the department of Propaedeutic Pediatrics and the Department of Pediatrics during the production practice at the children's hospital. They are mastering basic skills of collecting anamnesis, conducting the examination, systemizing the symptoms in syndromes, planning examination of a sick child, interpretation of laboratory and instrumental examinations, carrying out a differential diagnosis most common diseases of the neonatal period, the main pathological conditions of the endocrine and hematopoietic system in children, determination of the preliminary clinical diagnosis, determination of therapeutic tactics, treatment with drug dosages administration, emergency medical care, clinical cases solving, working off practical skills on mannequins and near the bed of a sick child, feeling in the medical records.

**3. The purpose and objectives of the course**

1.1. The purpose of teaching the educational discipline "Pediatrics" is as follows: formation of the ability to use knowledge, skills to solve typical problems of the doctor in the children's health field, the use of which is foreseen by defined list of syndromes and symptoms of diseases, emergency conditions, physiological conditions, and diseases requiring special tactics of patient management; laboratory and instrumental examinations, medical manipulations.

1.2. The main **task** of studying the discipline "Pediatrics" is that the student should know and be able to do while study the discipline.

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

- Etiologic factors of the most common childhood diseases;

- Pathogenesis of the most common somatic diseases of childhood;
- Classification of the most common somatic diseases of childhood;
- The main clinical symptoms of the most common somatic diseases of childhood;
- Principles of treatment of the most common childhood diseases.

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

- Take anamnesis;
- Examine the sick child;
- Put a preliminary clinical diagnosis;
- Plan an investigation of a sick child;
- Interpret laboratory and instrumental data;
- Make a differential diagnosis of the most common childhood diseases in their typical course;
- prescribe treatment;

### 3. Competence and learning outcomes

Competency and learning outcomes, the formation of which is facilitated by discipline (the relationship with the normative content of the training of higher education graduates, formulated in terms of the results of training in the higher education standard).

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

#### **Integral competence:**

The ability to solve complex problems, including those of a research and innovation nature in the field of medicine

Ability to continue learning with a high degree of autonomy.

#### **General competences:**

- GC1 The ability to abstract thinking, analysis, and synthesis
- GC2 Ability to learn and master modern knowledge
- GC3 Ability to apply knowledge in practical situations
- GC4 Knowledge and understanding of subject area and understanding of professional activity
- GC5 The ability to adapt and act in a new situation
- GC6 Ability to make a justified decision
- GC7 Ability to work in a team
- GC8 Interpersonal skills interaction
- GC9 Ability to communicate in foreign language
- GC10 Skills in using information and communication technologies
- GC11 Ability to search, process and analyze information from various sources
- GC12 Awareness and perseverance concerning taken tasks and duties
- GC14 The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights

#### **Professional (Special) competences:**

- SC1 Ability to collect medical information about the patient and analyze clinical data
- SC2 Ability to determine the required list of laboratory and instrumental studies and assess their results
- SC3 The ability to establish preliminary and clinical diagnoses
- SC4 Ability to determine the necessary regime, training, work and recreation for healthy children and for those who are being treated for illnesses
- SC5 Ability to prescribe an appropriate diet in treatment and prevention of diseases
- SC6 Ability to determine the principles and type of treatment and prevention of diseases
- SC7 Ability to diagnose emergency conditions
- SC8 Ability to determine the tactics of emergency medical care
- SC10 The skills of performing medical manipulations
- SC11 Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information taking into account aspects of social and ethical responsibility
- SC13 Ability to carry out sanitary and preventive measures
- SC16 Ability to keep medical records, including electronic forms
- SC17 The ability to assess the impact of environmental, socio-economic and biological determinants on individual, family and population health
- SC21 Clearly and unambiguously communicate one's own knowledge, conclusions, and arguments about health problems and related issues to professionals and non-specialists, particularly to trainees.
- SC24 Adherence to ethical principles when working with patients
- SC25 Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results

### 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.

- Latin language and Medical terminology
- 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
- Pediatrics for 4th-year medical students
- Practice in a children's hospital

### 5. Program Learning Outcomes (PLO).

#### Compliance with the learning outcomes and competencies defined by the standard

Learning outcome	PLO code	SC code
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 1	SC 1-8; SC 10-11; SC-13; SC 16-17; SC 21; SC 24-25
Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care	PLO 2	SC 1-8; SC 10-11; SC-13; SC 17; SC 21; SC 25
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 4	SC 16; SC 24
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 5	SC 1-3; SC 7-8; SC11; SC 16; SC 24
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 6	SC 1-3 SC 7-8 SC 11 SC 16 SC 24
Order and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) for differential diagnosis of diseases	PLO 7	SC 1-2 SC 16 SC 24
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 8	SC 5-8 SC 10-11 SC 24
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	PLO 9	SC 1-2 SC 6-8 SC 10

decision on existing algorithms and standard schemes. If necessary to expand the standard scheme and justify personalized recommendations under the supervision of a physician			
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 10	SC 4-5 SC 24	
Assess the general condition of the newborn child by making an informed decision according to existing algorithms and standard schemes, adhering to the relevant ethical and legal norms.	PLO 12	SC 1-3 SC 6-8	
Assess and monitor the child's development, provide recommendations for breastfeeding and nutrition depending on age, organize preventive vaccinations on the calendar	PLO 13	SC 1 SC 7-8 SC 10-11	
Define tactics and provide emergency medical care in emergencies for a limited time in accordance with existing clinical protocols and treatment standards	PLO 14	SC 1 SC 7 SC 11	
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 17	SC 7 SC 11 SC 17	
Plan and implement a system of anti-epidemic and prophylactic measures for the emergence and spread of diseases among the population	PLO 19	SC 14	
Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information	PLO 21		
Assess the impact of the environment on human health in order to assess the state of morbidity in the population	PLO 23	SC 17	
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 24	SC 21	
Clearly and unambiguously communicate knowledge, conclusions and arguments on health issues and related issues to professionals and non-specialists	PLO 25	SC 11 SC 17 SC 21	
Fluent in the state and English languages, both orally and in writing to discuss professional activities, research and projects	PLO 27	SC 17 SC 21	

#### 6. 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 when the syllabus is filling (category: <b>Kn</b> -Knowledge, <b>Sk</b> - Skill, <b>C</b> -Competence, <b>AR</b> - Autonomy and Responsibility	Learning outcomes determine what the student must know, understand and be able to perform, after completing the discipline in accordance with the learning objectives. To enroll in the discipline, it is necessary to confirm the achievement of each learning result.	The symbol of the code of the program learning results in the Standard of Higher Education
<b>Kn-1</b>  <b>Sk- 1</b>  <b>C-1</b>	To have specialized knowledge about the child, her organs and systems, the anatomical and physiological peculiarities of the children of different age, to know the standard methods of inquiry, taking genealogical information, preparation of pedigree, physical examination of patient of different ages. To know the methodology for assessment of prenatal development of the fetus. Know the stages and methods of examination of psychomotor and physical development of the child. To be able to talk to a child-and/or her parents (guardians), on the basis of algorithms and standards. Use the principles of communication with the parents of children with incurable diseases. Using standard techniques. To carry out examination of the patient. Be able to examine psychomotor and physical development of the child. Able to assess the quality of care, infant feeding and nutrition of	<b>PLO 1</b> <b>PLO 2</b> <b>PLO 5-7</b> <b>PLO 9</b> <b>PLO 13</b> <b>PLO 14</b>

<i>AR-1</i>	<p>children. Be able to conduct a comprehensive assessment of child health. To effectively form a communication strategy when communicating with the patient and/or his parents (guardians). Transfer information about the health of the child or intrauterine development of the fetus to the relevant medical documentation. Be responsible for qualitative gathering of information received on the basis of interviews, surveys, review, and palpation, percussion of organs and systems and for timely assessment of the condition: child's health, psychomotor and physical development of the child and Intrauterine development of fetus and for taking appropriate measures.</p>	
<i>Kn-2</i> <i>Sk-2</i> <i>C-2</i> <i>AR-2</i>	<p>To have specialized knowledge about the child, her organs and systems, standard methods of laboratory and instrumental examinations To be able to analyze the results of laboratory and instrumental examinations and to make preliminary diagnosis To form and convey to the patient and/or his/her parents (guardians), experts' conclusions on the necessary List of laboratory and instrumental studies Be responsible for deciding on the results evaluation of laboratory and instrumental examinations</p>	<p><b>PLO 1</b> <b>PLO 2</b> <b>PLO 5-7</b> <b>PLO 9</b></p>
<i>Kn-3</i> <i>Sk-3</i> <i>C-3</i> <i>AR-4</i>	<p>Algorithms for selection of leading symptoms or syndromes; preliminary and final clinical diagnoses; methods of laboratory and instrumental examination; Assessment of the child's condition Be able to conduct physical examination of the patient; Be able to make informed decisions about allocation of leading clinical symptom or syndrome Be able to make the preliminary and final clinical diagnosis; to recommend laboratory and instrumental examination of the patient by applying standard methods On the basis of normative documents fill in medical documents (ambulatory and hospital cards, etc.) On the basis of ethical and legal norms, be responsible for making reasonable decisions and actions on the correct preliminary and final clinical diagnosis</p>	<p><b>PLO 1-2</b> <b>PLO 5-6</b></p>
<i>Kn-4</i> <i>Sk-4</i> <i>C-4</i> <i>AR-4</i>	<p>Algorithms and standard schemes for determining the regime of training, work and rest of healthy children and at treatment of the disease, on the basis of preliminary and clinical diagnosis To be able to determine the necessary regime of training, work and rest of healthy children and in the treatment of the disease To form and convey to the patient and/or his parents (guardians) and experts' conclusions on the necessary regime, mode of study, work and rest of healthy children and in the treatment of the disease Be responsible for the validity of the recommended regime of study, work and rest of healthy children and in the treatment of the disease</p>	<p><b>PLO 1-2</b> <b>PLO 10</b></p>
<i>Kn-5</i> <i>Sk-5</i> <i>C-5</i> <i>AR-5</i>	<p>Have specialized knowledge about algorithms and standard schemes of nutrition for healthy children and during the treatment of diseases Be able to determine the type of nutrition of healthy children and on the basis of preliminary and final diagnoses, the type of nutrition in the treatment of diseases Formulate and communicate to the patient and/or their parents (guardians), conclusions of specialists on the nutrition of healthy children and in the treatment of diseases Be responsible for the reasonableness of nutritional determinations for healthy children and in the treatment of illness</p>	<p><b>PLO-1-2</b> <b>PLO 8</b> <b>PLO 10</b></p>
<i>Kn-6</i> <i>Sk-6</i> <i>C-6</i> <i>AR-6</i>	<p>Have specialized knowledge of algorithms and standard methods for disease treatment Able to determine the principles and methods of treatment of disease To form and convey to the patient and/or his/her parents (guardians), experts own conclusions about the principles and methods of the treatment Be responsible for deciding on the principles and methods of treatment</p>	<p><b>PLO 1-2</b> <b>PLO 8-9</b></p>

	of disease	
<i>Kn-7</i>	To have specialized knowledge about the person, its organs and systems, standard methods of human examination (at home, on the street, in the health care institution) in terms of lack of information.	<b>PLO 1-2</b> <b>PLO 5-6</b> <b>PLO 8-9</b> <b>PLO 13-14</b> <b>PLO 17</b>
<i>Sk-7</i>	To be able, in terms of lack of information, using standard methods, to make a reasonable decision, to assess the condition of the person and determine the main clinical syndrome (or what is due to the severity of the victim/injured)	
<i>C-7</i>	Under any circumstances, on the basis of appropriate ethical and legal norms, make a reasonable decision concerning assessment of the severity of the human condition, diagnosis and organization of necessary medical measures, depending on the human condition; fill in relevant medical documents.	
<i>AR-7</i>	Be responsible for the timely and effective medical measures for the diagnosis of emergency conditions.	
<i>Kn-8</i>	Know legislative base for emergency medical care, including the law of Ukraine "on emergency medical care". To have specialized knowledge about human emergency conditions; principles of emergency medical care, algorithms for providing emergency medical care for emergency states	<b>PLO 1-2</b> <b>PLO 5-6</b> <b>PLO 8-9</b> <b>PLO 13</b>
<i>Sk-8</i>	To be able to determine emergency conditions; The principles and tactics of emergency medical care; To carry out organizational and diagnostic measures aimed at rescue and save the human life. To be able to provide emergency medical care in the emergency state of a person	
<i>C-8</i>	Substantiate and explain to the patient or his legal representative the need for emergency assistance and get consent for medical intervention. Explain the need and procedure for therapeutic measures of emergency medical care.	
<i>AR-8</i>	Be responsible for correct determination of urgent state, degree of its severity and tactics of emergency medical care. Responsible for timeliness of and quality of emergency medical care.	
<i>Kn-9</i>	Knowledge of algorithms of medical manipulations	<b>PLO 1-2</b> <b>PLO 8-9</b> <b>PLO 13</b>
<i>Sk-9</i>	Be able to carry out medical manipulations	
<i>C-9</i>	Reasonably formulate and communicate to the patient, and/or their parents (guardians), specialists the conclusions about the need for medical manipulation	
<i>AR-9</i>	To be responsible for the quality of medical manipulations	
<i>Kn-10</i>	Have specialist knowledge of standard child assessment techniques (at home, outdoors, in a health care setting) new or unfamiliar environments and in information-poor settings	<b>PLO 1-2</b> <b>PLO 5-6</b> <b>PLO 8</b> <b>PLO 13-14</b> <b>PLO 17</b> <b>PLO 25</b>
<i>Sk-10</i>	Be able to assess the child's condition and identify the main clinical syndrome (or the severity of the victim's condition) in an information-poor environment, using standard techniques	
<i>C-10</i>	In all circumstances, respecting appropriate ethical and legal standards, make an informed decision on the assessment of the severity of the child's condition, the diagnosis and the organisation of the necessary medical measures according to the child's condition; complete the relevant medical documents	
<i>AR-10</i>	Be responsible for solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information	
<i>Kn - 11</i>	To know the system of hygienic and prophylactic events among the population observed. To know the principles of organization of follow-up of different groups of population, who are subject to supervision (newborns, children, teenagers) and a group of patients; To know the assessment indicators of the organization and efficiency of follow-up. To know the methodical approaches to assess the condition of the surrounding environment and the presence of factors which affect the health of the population in these conditions. Know principles of rational nutrition, water supply, mode of activity and rest, forming a favorable work environment, primary prevention of diseases and injuries;	<b>PLO 1-2</b>

<p><i>Sk - 11</i></p> <p><i>C - 11</i></p> <p><i>AR - 11</i></p>	<p>Principles and methods of promoting healthy lifestyles Be able to form groups of children for their clinical examination. Be able to make a plan for clinical groups. Have skills in organizing the follow-up contingents. Have the skills to analyze the health of population groups based on the results of clinical and medical and preventive measures. Have skills in drafting analytical certificate about the health of children depending on factors of industrial and environmental conditions. Able to organize the propaganda of healthy lifestyles, primary prevention of diseases and injuries of the population. Based on the results of clinical examination and analysis of children's health, state of production and environment know the principles of submitting analytical information to the local management and health authorities; to heads of industrial enterprises about method of elimination the harmful effects on children's health. Use the local press to publications on health improvement activities and environmental improvements, use radio, television, lectures and interviews. Be responsible for timely and qualitative activities on assessment of the health of children, health improvement and improvement of the health of certain contingents, improving the environment, promoting healthy lifestyles, primary prevention of diseases and injuries.</p>	
<p><i>Kn - 12</i></p> <p><i>Sk - 12</i></p> <p><i>C - 12</i></p> <p><i>AR - 12</i></p>	<p>Know the system of official document circulation in the doctor's work, including modern computer information technology Be able to determine the source and location of the required information depending on its type; To be able to process information and analyze received information. To receive the necessary information from the defined sources and form the relevant conclusions based on its analysis. Be responsible for the completeness and quality of the analysis of information and conclusions based on its analysis.</p>	<p><b>PLO 4-7</b></p>
<p><i>Kn - 13</i></p> <p><i>Sk - 13</i></p> <p><i>C - 13</i></p> <p><i>AR - 13</i></p>	<p>Be able to assess the state of health of the child population, the state of the environment and negative factors affecting health Ability to solve problems in new and unknown environments Clearly and unambiguously form conclusions about the state of health of the child population, based on data on the relationship with environmental factors, socio-economic and biological determinants Be responsible for timely conclusions on the state of health of the child population based on data on the negative impact of environmental factors, socio-economic and biological determinants To be responsible for assessing the state of health of the child population, the state of the environment and negative factors of influence on health.</p>	<p><b>PLO 1-2</b> <b>PLO 17</b> <b>PLO 23</b> <b>PLO 25</b> <b>PLO 27</b></p>
<p><i>Kn - 14</i></p> <p><i>Sk - 14</i></p> <p><i>C - 14</i></p> <p><i>AR - 14</i></p>	<p>To think critically about problems in the field and on the border of the fields of knowledge Ability to solve problems in new and unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethnic responsibility Use foreign languages in professional activities Be responsible for contributing to professional knowledge and practice and/or evaluating results</p>	<p><b>PLO 1-2</b> <b>PLO 24</b> <b>PLO 25</b> <b>PLO 27</b></p>
<p><i>Kn - 15</i></p> <p><i>Sk - 15</i></p> <p><i>C - 15</i></p> <p><i>AR - 15</i></p>	<p>To know the basic ethical and deontological principles necessary in professional activity. Be able to apply basic ethical considerations (motives) in the performance of professional duties. To comply with the requirements of ethics, bioethics and deontology in their professional activities. Be responsible for compliance with the requirements of ethics, bioethics and deontology in their professional activities.</p>	<p><b>PLO 4-8</b> <b>PLO 10</b></p>

<b>Kn - 16</b> <b>Sk - 16</b> <b>C - 16</b> <b>AR - 16</b>	Know the basic principles of academic and professional integrity Adhere to the principles of academic and professional integrity Use the principles of academic and professional integrity and knowledge of foreign languages Be responsible for compliance with the principles of academic and professional integrity	<b>PLO 1-2</b>		
<b>6. Format and scope of the course</b>				
<b>Type of activity</b>	<b>Number of hours</b>			<b>Number of groups</b>
<i>Lectures (L)</i>	10			The second stream of students
<i>Workshops (W)</i>	43			
<i>Independent work of student (IWS)</i>	52			
<b>7. Topics and content of the course</b>				
<b>Code of trainingtype</b>	<b>Topic</b>	<b>Content</b>	<b>Code of the learning result</b>	<b>Teacher</b>
L-1 (lecture -1)	Preterm and small for gestational age newborns	Definition, etiology, pathogenesis, classifications, clinic, diagnostics, treatment	PLO 1 PLO 2	Prof. Dmytro Dobryansky
L-2	Non-infectious pathology of newborns.	Definition, etiology, pathogenesis, classifications, clinic, diagnostics, differential diagnosis, treatment	PLO 1 PLO 2	Prof. Dmytro Dobryansky
L-3	Infectious diseases of newborns.	Definition, etiology, pathogenesis, classifications, clinic, diagnostics, differential diagnosis, treatment	PLO 1 PLO 2	Prof. Dmytro Dobryansky
L-4	Red blood cells pathology in children.	Definition, etiology, pathogenesis, classifications, clinic, diagnostics, differential diagnosis, treatment	PLO 1 PLO 2	Assoc. Prof. Olga Troyanovska
L-5	The endocrinology disease in children.	Definition, etiology, pathogenesis, classifications, clinic, diagnostics, differential diagnosis, treatment	PLO 1 PLO 2	Assoc. Prof. Olga Troyanovska
W-1	Medical care for healthy newborns. Anatomical and physiological peculiarities of preterm newborns. Features of preterm postnatal transition. Danger of COVID-19 for newborns: management and feeding.	Organization of neonatal medical care in Ukraine. Medical care for a healthy newborn. Bioethical issues in modern neonatology. A full-term newborn baby. Care in the maternity hospital. Hospital discharge criteria. The transitional conditions. Doctor's tactics	PLO 4-10 PLO 12 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Prof. D. Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
W-2	Main clinical problems of preterm and small newborns. Nutrition for preterm and small newborns.	Criteria in determining prematurity. Adaptation features of preterm infants. Etiological factors of prematurity. Anatomical and physiological peculiarities. Classification of the	PLO 4-10 PLO 12 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Prof. D. Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova



		<p>premature infants according to the birth weight and correlation of physical development and gestational age (Ballard score). Principles of preterm infant's nursing. Emergency care for major emergencies in premature infants: hypothermia, respiratory failure, hypoglycemia.</p> <p>Intrauterine growth retardation (IUGR): causes, postnatal diagnosis, features of early neonatal adaptation. Peculiarities of nutrition of the premature infants.</p>		
W-3	Birth asphyxia and neonatal resuscitation.	<p>Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis. Neonatal primary resuscitation.</p>	<p>PLO 4-10 PLO 12 PLO 14 PLO 17 PLO 19 PLO 23-25</p>	<p>Prof. D. Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova</p>
W-4	Respiratory disorders in newborns: causes, diagnosis, principles of treatment. Lung diseases in newborns.	<p>Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis.</p>	<p>PLO 4-10 PLO 12 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25</p>	<p>Prof. D. Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova</p>
W-5	Bacterial infections of the newborn. Intrauterine and perinatal infections of the fetus and newborn.	<p>Purulent-inflammatory diseases of the skin and subcutaneous tissue, diseases of the umbilical cord, umbilical wound and umbilical vessels: classification, etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, prevention, prognosis. Neonatal sepsis: classification, etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, prevention, prognosis. "TORCH" infections in newborns: etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, prevention, prognosis.</p>	<p>PLO 4-10 PLO 12 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25</p>	<p>Prof. D. Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova</p>
W-6	Hemolytic and hemorrhagic diseases of newborns.	<p>Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis.</p>	<p>PLO 4-10 PLO 12 PLO 13 PLO 14 PLO 17 PLO 19</p>	<p>Prof. D. Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova</p>

			PLO 23-25	
	Case report discussion.	Justification of the medical case report written by the student. Correcting mistakes during an individual interview	PLO 1-2 PLO 4-10 PLO 12 PLO 13 PLO 14 PLO 17 PLO 25	Prof. D.Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
W-7	Anemias and hemorrhagic diseases in children.	Definition. Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Emergency care for bleeding and hemorrhagic conditions that require treatment. Prevention. Prognosis.	PLO 4-10 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
W-8	Leukemia in children. Lymphoma in children.	Etiology. Pathogenesis. Classification. Diagnosis. Differential diagnosis of other hematological diseases and diseases accompanied by hyperplastic syndrome. Treatment. Prognosis.	PLO 4-10 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
W-9	Diabetes mellitus in children.	Etiology, pathogenesis, classification, clinical manifestations, diagnosis, differential diagnosis, treatment, prevention, prognosis of diabetes in children. Insulin therapy. Diabetic ketoacidosis and hypoglycemic coma: etiology, pathogenesis, classification, clinical presentation, diagnosis, differential diagnosis, emergency care and prevention. Prognosis.	PLO 4-10 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
W-10	Diseases of the hypothalamic-pituitary system in children. Hypopituitarism. Thyroid diseases in children.	Etiology, pathogenesis, classification, clinical manifestations, diagnosis, differential diagnosis, treatment and prevention. Prognosis of growth abnormalities. Emergency care of thyrotoxicosis and thyroid storm in children.	PLO 4-10 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
W-11	Gonadal disorders in children. Diseases of the adrenal glands.	Etiology, pathogenesis, classification, clinical manifestations, diagnosis, differential diagnosis, treatment and prevention. Prognosis of pathology of the gonads. Acute and chronic adrenal glands insufficiency in	PLO 4-10 PLO 13 PLO 14 PLO 17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova

		children. Clinical and diagnostic peculiarities. Differential diagnosis. Addisonian crisis. Congenital adrenal hyperplasia.		
IWS-1	Neonatal birth traumas.	Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis.	PLO 4-10 PLO 13 PLO17 PLO 19 PLO 23-25	Prof. D.Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A.Menshykova
IWS-2	Radiographic syndromes of the lung damage in newborns.	The main radiological signs of lung damage in newborns	PLO 4-10 PLO 13 PLO 17 PLO 19 PLO 23-25	Prof. D.Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A.Menshykova
IWS-3	Perinatal HIV infection.	Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis.	PLO 4-10 PLO 13 PLO17 PLO 19 PLO 23-25	Prof. D.Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A.Menshykova
IWS-4	Leukemic reactions in children. Lymphadenopathy in children.	Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis.	PLO 4-10 PLO 13 PLO17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
IWS-5	Chronic complications of diabetes mellitus in children. Clinical observation of children with diabetes mellitus. Diabetes insipidus.	The most common chronic complications of diabetes.	PLO 4-10 PLO 13 PLO17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
IWS-6	Obesity in children. Growth disorders in children.	Etiology. Pathogenesis. Classification. Clinical manifestations. Diagnosis. Differential diagnosis. Treatment. Prevention. Prognosis.	PLO 4-10; PLO 13; PLO17; PLO 19; PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
IWS	Preparation for practical classes	In accordance with the allotted time, students independently prepare for workshops. A topic coincides with the topics of workshop (W 1-11).	PLO 1-2 4-10 PLO 13 PLO17 PLO 19 PLO 23-25	Assoc. Prof. O. Troyanovska, Assoc. Prof. O. Borysiuk, As. Prof. A. Menshykova
ISW individual student work	Writing the case report.	Independent writing of the case report, preparation for case report discussion	PLO 1-2 PLO 4-10 PLO 12-14 PLO 17 PLO 21	Prof. D.Dobryansky, Assoc. Prof. O. Borysiuk, As. Prof. A.Menshykova

The following teaching methods are used to develop skills:

- ✓ **verbal/oral** (explanation, cases);
- ✓ **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

Current control is carried out during the training sessions and aims to check the assimilation of students' educational material (it is necessary to describe the forms of current control during training sessions). Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. Practical classes in the course of studying the discipline "Pediatrics" are structured and include comprehensive assessment of all types of learning activities (learning tasks) that students perform during the practical training.

<i>Learning results code</i>	<i>Code of the type of the classes</i>	<i>Verifying learning outcomes method</i>	<i>Enrollment criteria</i>
Kn - 1-16 Sk - 1-16 C - 1-16 AR- 1-16	L 1-5	Mastering of lecture material is checked during practical classes in accordance with the topics. Current control is carried out at each practical lesson. The initial stage - answers to at least 10 multi choice questions (MCQs).	Initial stage: 10-9 MCQs = 5 points; by 8-7 MCQs = 4 points; 6-5 MCQs = 3 points; 4 or less MCQs = 0 points.
Kn - 1-16 Sk - 1-16 C - 1-16 AR- 1-16	W 1-11	The main part of the lesson is the practical work of the student at the patient's bedside. The teacher with students are doing ward rounds and examine sick children, collect anamnesis, perform diagnostic procedures etc. The control of the main stage of the lesson is carried out due to the assessment of student's performance of practical skills and the ability to solve typical clinical cases. The teacher discusses and gives explanations, emphasizes the peculiarities of the disease in a particular child, aiming at implementation of the most rational method of examination, and so on. At the final stage of the workshop, to evaluate the student's mastery of the topic, he is asked to answer a situational case. The teacher summarizes the lesson, gives students a task for independent work, indicates the key issues of the next topic and offers a recommended reading list for independent study	Main stage: It is rated with traditional grades of 5, 4, 3, 2. <b>Excellent</b> "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. <b>Good</b> "4" - correctly and essentially answers all standardized questions of the current topic; demonstrates performance/knowledge of practical skills; differential diagnosis. <b>Satisfactory</b> "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. <b>Unsatisfactory</b> "2" - does not know the material of the current topic, can't 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 practical skills
Kn - 1-16 Sk - 1-16 C - 1-16 AR- 1-16	IWS -1-13	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

Kn - 1-16 Sk - 1-16 C - 1-16 AR- 1-16	ISW individual student work	The defense of the case report is conducted at the last lesson of the thematic section "Neonatology" after the teacher checks the compliance of the case report with the requirements in the form of an individual interview with each student individually. Control of individual work - defense of the case report. The case report should be written and submitted for verification on time (at least one week before the defense).	A case report is written and defended without errors - an <b>"excellent" grade</b> ; minor errors in writing, which are corrected by the student independently - a <b>"good" grade</b> ; significant errors in writing and defense, or inability to justify their opinion - a <b>"satisfactory" grade</b> ; the story is written with gross errors, without compliance with the requirements and is not defended - an <b>"unsatisfactory" grade</b> .
<b>Final control</b>			
<b>General evaluation system</b>	Participation in the work during the semester / credit on a 200-point scale		
<b>Rating scales</b>	traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale		
<b>Admission to final control</b>	<p>Students are admitted to semester final control:</p> <ul style="list-style-type: none"> <li>- who have performed all types of work, tasks provided for in the curriculum for the semester in accordance with the discipline (in particular, wrote and handed in the case report</li> <li>- attended all classes provided by the curriculum;</li> <li>- worked out missed classes;</li> <li>- scored the number of points for the current success, not less than the minimum (72 points).</li> </ul> <p>Students who have missed workshops are allowed with the <i>Dean's permission</i> to work academic debts up to the specified term within the semester.</p>		
<b>Type of final control</b>	<b>Methods of final control</b>		<b>Enrollment criteria</b>
<b>Exam</b>	<p>the exam is conducted in writing during the examination session, according to the schedule. The form of the exam is standardized and includes control of theoretical and practical training. Semester exam lasts about 2 academic hours and is carried out according to the following regulations:</p> <p>Stage 1 - Test control - 40 MCQ's, it is held for 40 minutes. The maximum number of points is 40 (0.5 points per 1 correct answer). The minimum criterion for successful passing of the test control is the result of 60% of correct answers.</p> <p>Stage 2 – A complex clinical cases solving, including interpretation of laboratory and instrumental studies data, determination of preliminary clinical diagnosis, determination of therapeutic tactics, treatment prescription. The task is carried out within 60 minutes. The maximum number of points is 20 for one task. At this stage, 2 typical clinical cases are supposed to be solved. One case from the topics of the 4th course, the second - on the topics of the 5th course.</p> <p><i>In the case of distance learning</i>, the exam is conducted online and involves solving MCQ's. The student is offered 40 tests of the first level, with one correct answer and 40 tests of the second level, the expanded choice of 50% of correct answers of the total number. A total amount is 80 MCQ's.</p> <p>The student receives 1 point for a correct answer to one question of the first level MCQ's, and</p>		<p>The maximum number of points that a student can score in the exam is 80.</p> <p>The minimum number of points to pass the exam is at least 50.</p>

0.25, 0.5, 0.75, or 1 point for one question of the second level MCQ's, if the number of correct answers are 4 or 0.33, 0,67 or 1 point if the number of correct answers are 3.

### 9. Course policy

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

The observance of academic integrity by students involves:

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

### 10. References

#### Main sources

1. Cloherty and Stark's Manual of Neonatal Care. Eighth Edition. AR. Hansen, EC. Eichenwald, CR. Martin, AR. Stark, (Editors). Philadelphia: Wolters Kluwer, 2017. P. 641-683; 720-737.
2. Nelson textbook of Pediatrics 21st Edition by Robert M. Kliegman, Joseph W. St Geme III, et al. Philadelphia: Elsevier, 2020.
3. Marcadante K., Kliegman R.M., Behrman R.E., Jenson H.B. Nelson Essentials of Pediatrics, 8 ed., Saunders, 2018.- 832 p.
4. Pediatric Secrets / 6th ed. by Polin R.A., Ditmar M.F. / Mosby, 2015.- 752 p.
- Frank G., Zaoutis L., Catalozzi M., Zaoutis L.B., Shah S.S. The Philadelphia guide: inpatient pediatrics / LWW, 2019.- 608 p.

#### Additional sources

1. British committee for standards in haematology (2016). Guidelines on red cell transfusion in sickle cell disease. Part I principles and laboratory aspects. British Journal of Haematology.
2. British committee for standards in haematology (2016). Guidelines on red cell transfusion in sickle cell disease. Part II indication for transfusion. British Journal of Haematology.
3. Queensland Pediatric Guidelines. Diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycaemic State (HHS) - Emergency management in children. <https://www.childrens.health.qld.gov.au/guideline-dka-emergency-management-in-children/>
4. Sharma ST, Nieman LK, Feelders RA. Cushing's syndrome: epidemiology and developments in disease management. Clin Epidemiol. 2015;7:281–293.
5. Pediatric Adrenal Insufficiency: Diagnosis, Management, and New Therapies. International Journal of Pediatrics 2018(1):1-8.
6. Congenital Adrenal Hyperplasia Due to Steroid 21-Hydroxylase Deficiency: An Endocrine Society Clinical Practice Guideline. [2018]

#### Information resources

[https://emedicine.medscape.com/pediatrics\\_general](https://emedicine.medscape.com/pediatrics_general)  
<https://pubmed.ncbi.nlm.nih.gov/>  
<https://www.who.int/>  
<https://www.aap.org/en-us/Pages/Default.aspx>  
<http://www.generalpediatrics.com/>

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

- Working program of the discipline
- Plans of lectures, practical classes and independent work of students
- Guidelines for practical training for students
- Instructions for teachers training
- Guidelines for self-work of students
- Multiple choice questions and clinical cases
- The list of questions submitted to the final control
- Methodological support for final control
- The list of standardized methods for performing practical skills.
- The lectures recordings (or presentation)

### 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:

[Kaf\\_pediatics\\_2@meduniv.lviv.ua](mailto:Kaf_pediatics_2@meduniv.lviv.ua)

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 №2" on the website of LNMU named after Danylo Halytsky: <http://misa.meduniv.lviv.ua/login/index.php>

The working 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.

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