

ODESSA NATIONAL MEDICAL UNIVERSITY
 Medical faculty # 2
 Department of Propaedeutics of Pediatrics

Syllabus of the discipline

“PROPEDEUTICS OF PEDIATRICS”

Total	5 credits ECTS, 150 hours
Year of study	V – VI semester
Date, time, place	During the semester according the schedule
Lecturer	Starets O.O. , D.Sc. Med., Professor
	Kotova N.V., D.Sc. Med., Professor
	Fedorenko O.V., Ph.D. Med., associate Professor
	Kukushkin V.N., Ph.D. Med., associate Professor
	Kalashnikova K.A., Ph.D. Med., associate Professor
	Losieva K.O., Ph.D. Med., associate Professor
	Nikitina N.A., Ph.D. Med., associate Professor
	Herashchenko Y.O., assistant
	Godlevska O.V., Ph.D. Med., associate Professor
	Dubkovska M.V., Ph.D. Med., assistant
	Koban N.A., assistant
	Maichuk V.O., Ph.D. Med., assistant
	Khimenko T.M., Ph.D. Med., assistant
	Chernysh S.B., assistant
	Kovalenko D.A., assistant
	Solovyova S.A., assistant
Stobetska S.A., assistant	
Shapovalenko I.E., assistant	
Phone number	+38(048)723-74-84
E-mail	proped_ped@onmedu.edu.ua
Workplace	Department of Propaedeutics of Pediatrics Address: 65082 Ukraine, Odessa, Valichovsky lane, 5
Consultations	During the semester according the schedule

COMMUNICATION

Communication with students will be carried out through the use of e-mail, social networks, telephone, face-to-face meetings.

COURSE ANNOTATION

The subject of the discipline "Propaedeutics of Pediatrics" is a mandatory component of the educational-professional training program in the specialty 222 "Medicine", during which students study the patterns of growth and psychomotor development of children of different ages, anatomical and physiological features, research methods and semiotics various organs and systems of the child's body, the principles of rational feeding and nutrition of children of different ages.

Prerequisites: the study of the discipline "Propaedeutics of Pediatrics" is provided in the third year in the V and VI semesters, when students acquire relevant knowledge in basic disciplines: medical biology, medical and biological physics, medical chemistry, biological and bioorganic chemistry, human anatomy, histology, cytology and embryology, physiology, Latin and medical terminology and patient care, with which the curriculum is integrated.

Postrequisites of the course: knowledge, skills and abilities in the discipline "Propaedeutics of Pediatrics", necessary for further in-depth study of pediatrics in 4, 5, and 6 courses (including emergencies in pediatrics) and postgraduate education (internship), pediatric infectious diseases , pediatric surgery, family medicine.

The aim is to acquire the necessary knowledge, skills and mastery of relevant competencies in accordance with the professional requirements for the training of specialists of the second master's level of higher education in the specialty 222 "Medicine". Develop the ability to use knowledge, skills, abilities to solve tasks and problems in the field of children's health and understanding how to make informed decisions when providing medical care to children.

Tasks of the discipline:

- Acquisition of communication skills and clinical examination of children of different ages with the most common diseases of the nervous, respiratory, cardiovascular, hematopoietic, digestive, urinary and endocrine systems;
- Acquisition of knowledge and skills to determine the list of necessary clinical, laboratory and instrumental studies and evaluate their results in the most common diseases in children;
- Acquisition of knowledge and skills to establish a preliminary and clinical diagnosis of the disease.

Expected results

As a result of studying the discipline, students must know the etiology, pathogenesis, methods of diagnosis, treatment and prevention of the most common diseases of the nervous, respiratory, cardiovascular, hematopoietic, digestive, urinary and endocrine systems in children, and understand professional activities in helping children with this pathology .

Students must be able to:

- Communicate with parents and children of different ages, collect data on complaints, medical history and life, conduct clinical examinations of children with common diseases of various organ systems.
- Based on the results of the clinical study, determine the list of additional laboratory and instrumental studies and evaluate their results.
- Identify the leading clinical symptom or syndrome, establish a preliminary diagnosis, make a differential diagnosis and determine the clinical diagnosis of the disease.
- Keep medical records.
- Adhere to the requirements of ethics, bioethics and deontology in their field.

COURSE DESCRIPTION

Forms and methods of teaching

The course will be presented in the form of lectures (30 hours) and practical classes (70 hours), organization of independent work of students (50 hours).

Verbal, visual (tables, figures), practical, simulation, part-search, research teaching methods, situational learning, oral examination and testing, curation of a sick child and writing a medical history of a sick child are used in teaching the discipline "Propaedeutics of Pediatrics".

The clinical base of the Department of Propaedeutics of Pediatrics is the Multidisciplinary Medical Center-University Clinic of ONMedU. Lectures are held in the lecture hall of the children's clinic of this base. Practical classes on the discipline are held in the departments of the children's clinic and in the premises of the Department of Propaedeutics of Pediatrics, which is located on the territory of the children's clinic.

Curriculum parts:

1. Periods of childhood.
2. Growth and psychomotor development of children
3. Natural feeding of infants.
4. Formula-feeding of infants.
5. Mixed feeding of infants.
6. Neurological system in children.
7. Skin and subcutaneous fat, bone and muscular system in children.
8. Respiratory system.
9. Cardiovascular system.
10. Blood system.
11. Digestive system.
12. Urinary system.
13. Endocrine system.
14. Writing a case history.

The thematic plan of lectures of the discipline

1. Pediatrics as science about healthy and sick child, its place in general medicine. The main historical stages of development of pediatrics in Ukraine. Principles of the organisation and methods of the treatment-and-prophylactic help to children in Ukraine. Periods of children`s age, their characteristic and features.
2. Newborn child. Physiological and transitional conditions of this period. Unconditioned reflexes. A primary toilet, features of premature.
3. Growth and psychomotor development of children of different age group. Concept about acceleration, basic hypotheses and mechanisms of acceleration. Semiotics of defeats of physical and psychomotor development of children.
4. Natural feeding. A value of natural feeding for child and mother health. Quantitative and qualitative structure of female milk. Immunobiological role of female milk. Methods of definition of daily meal quantity and regime of feeding. Rules and technique of feeding. Additional feeding and correction of nutrition. Needs for protein, lipids, carbohydrates and calories. Regime and nutrition of mother. Difficulties at feeding by a breast. Prevention of mastitis and hypogalactia. Features of nutrition of the prematurely born. Concept about “free nutrition”, its forms, indications for applications.
5. Formula feeding. Classification and characteristic of dairy mixes for artificial feeding. Mixed feeding. Technique and rules of additional feeding. Complimentary feeding at the artificial and mixed feeding.
6. Anatomic and physiological features of nervous system at children. A technique of clinical examination of nervous system at children. Semiotics of the main diseases of nervous system at children.
7. Morphological and functional features of skin and its derivatives at children. Features of structure of the subcutaneous fat. The general semiotics of its basic changes. The semiotics of the skin diseases and defeat of subcutaneous fat.
8. Anatomic and physiological features of bone and muscular system at children. Semiotics of defeat and diseases of bone and muscular system.
9. Anatomic and physiological features of respiratory system at children. Features of embryogenesis of respiratory system organs and anomalies of their development. Semiotics of defeats and main diseases of respiratory system at children. Syndromes of respiratory disorders and respiratory insufficiency, main clinical manifestations.
10. Anatomic and physiological features of heart and vessels at children. Congenital anomalies of the heart and vessels. Clinical signs of defeat of cardio-vascular systems at children. Semiotics of congenital diseases of heart and vessels at children. Semiotics of acquired diseases of heart and vessels at children. Features of ECG and FCG at healthy children of different age.
11. Clinical and hematological of main syndromes (anemic, hemolytic, hemorrhagic etc.) and diseases of blood system at children (anemia, acute and

- chronic leucosis, hemorrhagic vasculitis, trombocytopenic purpura and hemophilia etc).
12. Age anatomic and physiological features of digestive system at children. Semiotics of defects digestive organs and main diseases (gastritis, ulcer disease, cholecystitis, dyskinesia of biliary ways etc.). Syndrome of “acute abdomen”.
 13. Anatomic and physiological features of urinary system at children. Semiotics of most wide-spread diseases of urinary system at children (pyelonephritis, glomerulonephritis, cystitis etc.). Semiotics of microscopic changes of urinary deposit (proteinuria, erythrocyturia, leucocyturia, cylindruria etc.). Syndrome of acute and chronic renal insufficiency.
 14. Anatomic and physiological features of endocrine system at children. Semiotics of hyper- and hypofunction of endocrine glands and diseases of endocrine system at children.
 15. Immune system and feature of its functioning at children. Concept about immunodeficiencies, classification and semiotic of immunodeficient statuses. Clinical and immunological semiotics of AIDS –infection. Features of blood system at children of different age group.

The thematic plan of practical class of the discipline

1. Periods of children's age, their characteristic and features. The teratogenic factors and their influence on fetus. Critical periods of pregnancy.
2. Communication skills. General information. Subjective research: complaints, life history and history of the disease in children.
3. Newborn child. Examination of its systems. Apgar's scale. A primary toilet, features of premature. Physiological and transitional conditions of newborn period.
4. Unconditioned reflexes. Methodic of inspection of a newborn.
5. Evaluation of growth of children of different age group. Anthropometrical researches. Percentile and Z-scores tables.
6. Semiotics of disorders of growth of children. A day regime and physical training..
7. Evaluation of psychomotor development of children. Development of motorics, statics, sensor reactions, speech, emotions, social behavior. Features of functioning of nervous system of newborn child. Semiotics of the disorders of the psychomotor development .
8. Natural feeding. Quantitative and qualitative structure of female milk. Support of lactation. Contraindication on natural feeding. Daily requirement in nutritional ingredients and energy. Methods of definition of daily meal and regime of nutrition.
9. Complimentary feeding and correction of nutrition. Methods of definition of

daily meal and regime of nutrition after feeding up introduction. Rules of feeding of premature children and free feeding.

10. Formula (artificial) feeding. Classification and characteristic of dairy mixes for formula feeding. Guarantee cow milk. Technique of the artificial feeding and criterion of its efficiency. Complimentary and correction at the formula feeding. Needs for protein, lipids, carbohydrates and calories at the formula feeding. Mixed feeding. Technique and rules of additional feeding. Dairy mixes for feeding. Schema of mixed feeding for one-year-old children. Additional feeding and correction of feeding. Needs for protein, lipids, carbohydrates and calories at the mixed feeding. Classification of dairy mixes for artificial and mixed feeding.
11. The organization and principles of balance diet for healthy children of first year of life on different kinds of feeding. Drawing up of list of feeding on different types of feeding (natural, formula, mixed)
12. Solving complex situational tasks with the following list of issues: assessment of physical and psycho-motor development. Nutrition assessment, drawing up a food list and advising parents on breastfeeding.
13. A technique of clinical neurological examination of children of different age. Inspection of reflexes, sensitivity, coordination, cranial nerves, meningeal signs. Peculiarities of spinal fluid in babies of different age
14. Semiotics of the main diseases of nervous system at children (hydrocephaly, meningitis, encephalitis, cerebral palsy etc.)
15. A technique of examination of skin and subcutaneous fat at children. Semiotics of disorders of skin and subcutaneous fat
16. A technique of examination of bone and muscular system at children. Semiotics of disorders of bone and muscular system.
17. A technique of clinical examination of respiratory system at children of different age (complains, inspection, palpation, percussion, auscultation)
18. Semiotics of main diseases of respiratory system, respiratory insufficiency, main clinical signs.
19. Additional investigations in respiratory pathology
20. A technique of examination, palpation, percussion, auscultation of cardio-vascular system at children. Semiotics of disorders.
21. Semiotics of congenital and acquired diseases of heart and vessels at children. Main signs of defeats of cardio-vascular system (cyanosis, bradycardia, tachycardia etc.). Echocardiogram.
22. Semiotics of acquired diseases of heart and vessels at children (miocarditis, endocarditis, pericarditis, arrhythmia), Electrocardiogram
23. Features of blood system at children of different age group. Methods of clinical and laboratory examination with the defeat of blood systems. Laboratory methods of research of functional status of organs and systems in organism. Methods of diagnostic of immunodeficit.

24. Clinical and hematological semiotics of main syndromes and diseases of blood system at children (anemic, lymphoproliferative, hemolytic, hemorrhagic syndromes etc.) and diseases of blood system at children. Concept about immunodeficiencies. Classification and semiotics of immunodeficient statuses (HIV infection).
25. A technique of clinical examination of digestive system (examination, palpation, percussion, auscultation)
26. Semiotics of diseases of digestive organs and main diseases in infants (pylorospasm, pylorostenosis, malabsorption).
27. Semiotics of diseases of digestive organs and main diseases (gastritis, ulcer disease, cholecystitis, dyskinesia of biliary ways etc.) at older children. Abdominal, hepatobiliary, intestinal, pain syndrome, syndrome of jaundice, cholestasis etc.
28. A technique of examination of urinary system at children
29. Semiotics of most widespread diseases of urinary system at children. Syndrome of acute and chronic renal insufficiency. Semiotics of microscopic changes of urinary deposit (proteinuria, erythrocyturia, leucocyturia, cylindruria etc.).
30. A technique of examination and semiotics of syndromes, diseases of thyroid and parathyroid glands, epiphysis, hypophysis and adrenal glands at children
31. A technique of examination and semiotics of syndromes, diseases of pancreas at children.
32. Care of ill child, writing case history
33. Presentation of the case history.
34. Check-up of practical skills
35. Exam

Literature:

Main literature:

1. Gupta Piyush. Clinical Methods in Pediatrics. 4th edition.- CBS Publishers & Distributors, 2018.-669 p.
2. Newell Simon J Darling Jonatan C. Paediatrics_9th ed._2015.-320 p.
3. Kapitan T. Propaedeutics of children's diseases and nursing of child: Textbook for students of higher medical educational institutions. – Vinnitsa: The State Cartographical Factory, 2010. – 868 pp.
4. Duderstadt, Karen. Pediatric Physical Examination : an illustrated handbook / Karen G. Duderstadt. – 2nd ed. – 2014. – 366 p.
5. Nykytyuk S. O. et al. Manual of Propaedeutic Pediatrics. – Ternopil: TSMU, 2005. – 468 p.
6. Nelson. Essentials of Pediatrics. Sixth edition. Canada: 2011. - 831p.
7. Parthasarathy Fundamentals of Pediatrics. Ajanta offset & Packagings Ltd., New Delhi.-2013.-782 pp.
8. Pediatric Physical examination/ Karen G. Duderstadt.- 2nd ed.- 2014.- 366 pp.

9. Vicky R. Bowden, Cindy S. Greenberg. Pediatric nursing procedures. - Lippincott Williams & Wilkins. - 2011. - 822 pp.
10. Pediatric Nursing Procedures. [Vicky R. Bowden](#), [Cindy S. Greenberg](#). - Wolters Kluwer Health.- 2015 -728pp.
- 11.11. Methodical recommendations for practical class on discipline «Propedeutics of pediatrics».

Additional literature:

1. Partha, s Fundamentals of Pediatrics. Ajanta offset & Packagings Ltd., New Delhi.-2013.-782 pp.
2. Pediatric Physical examination/ Karen G. Duderstadt.- 2nd ed.- 2014.- 366 pp.
- 3.. Vicky R. Bowden, Cindy S. Greenberg. Pediatric nursing procedures. - Lippincott Williams & Wilkins. - 2011. - 822 pp.
4. Pediatric Nursing Procedures. Vicky R. Bowden, Cindy S. Greenberg. - Wolters Kluwer Health.- 2015 -728pp.

EVALUATION

Various forms of control of classes in a particular discipline (oral, written, combined, testing, practical skills, etc.) are used. The results of students' academic performance are presented in the form of assessment on a national scale, 200-point and ECTS scale and have standardized generalized criteria for assessing knowledge.

National scale:

- the grade "**excellent**" is given to the student who systematically worked during a semester, showed during examination various and deep knowledge of a program material, is able to successfully carry out tasks which are provided by the program, has mastered the maintenance of the basic and additional literature, has understood interrelation of separate sections of discipline. importance for the future profession, showed creative abilities in understanding and using educational material, showed the ability to independently update and replenish knowledge; level of competence - *high (creative)*;

- a grade of "**good**" is given to a student who has shown full knowledge of the curriculum, successfully completes the tasks provided by the program, mastered the basic literature recommended by the program, showed a sufficient level of knowledge in the discipline and is able to independently update and update during further study and professional activity; level of competence - *sufficient (constructive-variable)*;

- the grade "**satisfactory**" is given to the student who has shown knowledge of the basic educational program material in the volume necessary for the further training and the subsequent work on a profession, copes with performance of the tasks provided by the program, has made separate mistakes in answers on examination and at performance of examination tasks, but has the necessary knowledge to overcome mistakes under the guidance of a researcher; level of competence - *average (reproductive)*;

- the grade **"unsatisfactory"** is given to the student who did not show sufficient knowledge of the basic educational and program material, made fundamental mistakes in performance of the tasks provided by the program, cannot use the knowledge at the further training without the teacher's help, failed to master skills of independent work; the level of competence is *low (receptive-productive)*.

The multi-point scale characterizes the actual success of each student in mastering the discipline. Conversion of the traditional grade from the discipline to 200-point is performed by the information and computer center of the university program "Contingent" according to the formula:

$$\text{average grade point average (current / discipline) } \times 40$$

National score	Points
«5»	185-200
«4»	151-184
«3»	120-150

The *ECTS rating scale* evaluates the achievements of students in the discipline who study in one course of one specialty, in accordance with the scores obtained by them, by ranking, namely:

ECTS mark	Statistical indicator
«A»	The best 10 % of students
«B»	the next 25 % of students
«C»	the next 30 % of students
«D»	the next 25 % of students
«E»	the last 10 % of students

The ECTS scale establishes the student's belonging to the group of the best or worst among the reference group of classmates (faculty, specialty), ie his rating. When converting from a multi-point scale, as a rule, the limits of grades "A", "B", "C", "D", "E" do not coincide with the limits of grades "5", "4", "3" on the traditional scale.

Current control

During the current control, the following tools are used to diagnose the level of preparation of students: control of practical skills, solving situational problems, testing of theoretical material.

The current assessment of students on relevant topics is carried out according to the traditional 4-point system (excellent, good, satisfactory, unsatisfactory).

The grade of **"excellent"** is given to a student who has worked systematically

during the semester, showed during the exam comprehensive and in-depth knowledge of the program material, is able to successfully perform the tasks provided by the program, mastered the content of basic and additional literature, realized the relationship of individual sections of the discipline. for the future profession, showed creative abilities in understanding and using educational material, showed the ability to independently update and replenish knowledge; level of competence - *high (creative)*;

The grade "**good**" is given to a student who has shown full knowledge of the curriculum, successfully completes the tasks provided by the program, mastered the basic literature recommended by the program, showed a sufficient level of knowledge in the discipline and is able to independently update and update during further study and professional activity; level of competence - *sufficient (constructive-variable)*;

The grade "**satisfactory**" is given to the student who has shown knowledge of the basic educational program material in the volume necessary for the further training and the subsequent work on a profession, copes with performance of the tasks provided by the program, has made separate mistakes in answers on examination and at performance of examination tasks, but has the necessary knowledge to overcome mistakes under the guidance of a researcher; level of competence - *average (reproductive)*;

The grade "unsatisfactory" is given to the student who did not show sufficient knowledge of the basic educational and program material, made fundamental mistakes in performance of the tasks provided by the program, cannot use the knowledge at the further training without the teacher's help, failed to master skills of independent work; the level of competence is *low (receptive-productive)*.

In the practical lesson, students must be interviewed at least once in 2-3 practical lessons (not more than 75% of students), and in the seminar - at least once in 3-4 lessons (not more than 50% of students). At the end of the semester (cycle) the number of grades for students in the group should be the same on average.

At the end of each lesson, the teacher must announce the students' grades, make an appropriate entry in the *Journal of attendance and student performance* and *Information on the performance and attendance of students*.

At the end of the study, the current performance is calculated - the average current score (the arithmetic mean of all current grades on a traditional scale, rounded to two decimal places).

In the last practical lesson, the teacher is obliged to provide information to students about the results of their current academic performance and academic debt (if any), as well as when completing the curriculum in the discipline to fill out the student's record book.

To increase the average score in the discipline, the current grades "3" or "4" are not rearranged.

Final control

The form of final control is a semester credit and exam.

Semester credit. Assessment of students' performance in the discipline, the study of which is provided for two or more semesters, is based on the results of their current performance.

Semester credit is given to students who have attended all types of classes in the discipline in the current semester (there are no omissions of lectures and practical seminars, laboratory classes). *The average score is not calculated* during the semester test.

For such students, the teacher is obliged to put "*done*" in the student's record book in the last lesson of the discipline in the semester.

If a student receives a minimum grade point average of 3.00 for current performance, even if there are unsatisfactory grades, he receives a credit for the discipline.

At the end of the course, which ends with the exam, only those students who have completed all types of work provided for in the curriculum (do not have absences) are admitted to the final certification, their average score for the current academic activity is 3.00 and more.

The exam is conducted at the stage of completion of the student's study of the discipline as a whole or part of it, during which the student shows the level of understanding of the program as a whole, logic and relationships between individual sections, ability to creatively use accumulated knowledge, ability to form their attitude to a problem academic discipline, etc.

The Dean of the Faculty may set individual deadlines (schedule) for exams (tests) in connection with students' participation in international exchange programs, Erasmus programs, for other valid reasons for the student's absence from the university during the session at the initiative of the university. valid reasons (illness, family circumstances, internship at enterprises, institutions, organizations in the field of study with the prospect of future employment, etc.), which are documented.

A student is not allowed to take the exam in the discipline if he has not performed all types of work provided for in the working curriculum for a semester in this discipline and has not passed the final test control in the discipline.

The admission of a student to the session is evidenced by a stamp in the record book of the relevant dean's office with the signature of the dean (deputy dean) on the basis of the presence of tests in all semester disciplines.

The results of the exams are evaluated on a 4-point national ("excellent", "good", "satisfactory", "unsatisfactory") and 200-point scale, and are entered in the examination record and student record book.

Grades "good" and "satisfactory", obtained by the student during the final control (exam, differential test), are not re-added.

A student who was admitted to the exam or differential test and did not appear for it without good reason, is considered to have received an unsatisfactory grade.

Independent work of students.

The form of independent work is an independent study of ISW issues, which are included in the list of exam questions.

COURSE POLICY

Deadline and recompilation policy

- Missing classes are done according to the work schedule.
- Rework of the topic of the lesson, for which the student received a negative grade, is carried out at a convenient time for the teacher and the student outside the classroom, the maximum grade - "good".
- Rework of the topic during the current training and final control in order to increase the assessment is not allowed.

Academic Integrity Policy

Adherence to academic integrity by students provides:

- independent performance of educational tasks of current and final controls without the use of external sources of information, except in cases permitted by the teacher during the lesson to prepare practical tasks;
- write-offs during control are prohibited;
- independent performance of individual tasks and correct registration of references to sources of information in case of borrowing of ideas, statements, information.

Attendance and lateness policy

Attendance at all classes is mandatory for the current and final assessment of knowledge (except for good reasons).

Mobile devices

Independent performance of educational tasks of current and final controls without the use of mobile devices, except in cases permitted by the teacher during the lesson to prepare practical tasks.

Behavior in the audience

Actions in professional and educational situations from the standpoint of academic integrity and professional ethics and deontology.

- compliance with the rules of internal regulations of the clinical base of the department, to be tolerant, friendly and balanced in communication with students and teachers, patients, medical staff of health care institutions;

- awareness of the importance of examples of human behavior in accordance with academic norms integrity and medical ethics.