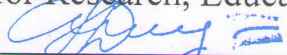


National Pirogov Memorial Medical University, Vinnytsya

"APPROVE"

Vice -Rector of higher education institution
for Research, Education and Teaching

 professor of HEI

Oksana SEREBRENNIKOVA

" 31 " 08 2022 year

"AGREED"

Head of department of Pediatric №2

 professor of HEI

Veronika DUDNYK

" 31 " 08 2022 year

**SYLLABUS
of academic discipline**

Pediatrics

Specialty	222 Medicine
Educational level	the second (master`s) level
Educational programme	EPP.Medicine, 2022
Academic year	2022-2023
Department	<i>Pediatric №2</i>
Contact information	<i>pediatric2@vnmu.edu.ua, Department of Pediatric №2, Communal Nonprofit Enterprise "Vinnytsia Regional Children's Clinical Hospital of Vinnytsia Regional Council", 108, Khmelnytske shosse Str, Vinnytsya, 21029 Tel (0432) 560819</i>
Syllabus compiler	Ass-professor of HEI. Hennadii RUDENKO

1. Status and structure of the discipline

Discipline status	Compulsory
Discipline code in EPP/discipline place in EPP	CC 30, discipline of professional training
Course / semester	5 th year (IX-X semesters)
The amount of discipline (the total number of hours / number of credits ECTS)	60 hours / 2 credit ECTS
Number of content modules	2
The structure of the discipline	Lectures 8 hours Practical classes 40 hours Independent work 12 hours
Language of study	English
Form of study	Full-time (<i>or remote full-time by order</i>)

2. Description of the discipline

Short annotation of the course, relevance. The main focus of the program is to obtain knowledge of the mandatory discipline of training "Pediatrics", the study of which is necessary for successful professional activity of the student. The subject area of the program is the main, most common diseases of childhood and infancy. The program focuses on knowledge of the etiology, pathogenesis, classification, diagnostic criteria, differential diagnosis, principles of treatment and prevention of major diseases of childhood, including childhood infectious diseases, as well as nosologies of the neonatal period.

Prerequisites. To successfully master the discipline the student needs knowledge gained in the study of the following disciplines: Latin and medical terminology, human anatomy, medical biology, genetics, normal and pathological physiology, clinical pharmacology, propaedeutics of internal and pediatric diseases.

The purpose of the course and its significance for professional activities. The aim of teaching the discipline "Pediatrics" is the formation of the ability to apply the acquired knowledge, skills, abilities to solve typical problems of a pediatrician in the field of health care in the relevant position, the scope of which is provided by certain lists of syndromes and symptoms of childhood diseases that require special tactics, management of patients, emergencies, laboratory and instrumental research, medical manipulations.

Postrequisites. In the process of studying the discipline "Pediatrics" 5th year students acquire the knowledge necessary for the successful mastering of this discipline in the 6th year and in further professional activities. In the 6th year, students study the discipline in the form of differential diagnosis of the most common diseases of childhood, practical skills of diagnosis and treatment of emergencies on the basis of stimulation classes.

3. Learning outcomes.

After successful study of the discipline the applicant will be able to:

1. Collect data on patient complaints, medical history, life history, conduct physical examination of children.
2. Evaluate information about the diagnosis using a standard procedure based on the results of laboratory and instrumental studies.
3. Identify the leading clinical symptoms or syndromes of childhood diseases by making an informed decision.
4. To establish the most probable or syndromic diagnosis of the disease in children.
5. Carry out differential diagnosis of childhood diseases, using the most probable or syndromic diagnosis, data from laboratory and instrumental examination of the patient.
6. To determine the principles and nature of treatment (conservative, operative) of the disease in children in a health care facility, outside it and at the stages of rehabilitation.
7. To establish the diagnosis of an emergency condition, to define tactics of rendering of emergency and emergency medical care on the basis of the diagnosis of an emergency condition at children.
8. Perform medical manipulations based on the previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision and using standard techniques.
9. To determine the tactics of examination and secondary prevention of children subject to dispensary supervision; tactics of examination and primary prevention of healthy children subject to dispensary supervision; calculate and prescribe the necessary food for children in the first year of life.

4. Content and logistic of the discipline

Module 3 «Diseases of blood and endocrine system in children»	IX or X semesters, 60 hours / 2 credit ECTS	Lectures № №1-4 Practical classes № №1-7
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The course includes 7 topics, which are the parts of thematic module.

Module 3 «Diseases of blood and endocrine system in children»

Topic 1. Anemias in children.

Topic 2. Hemoblastosis in children.

Topic 3. Hemorrhagic diathesis in children (thrombocytopenia, hemorrhagic vasculitis, coagulation disorders).

Topic 4. Diabetes mellitus in children.

Topic 5. Diseases of thyroid gland in children.

Topic 6. Diseases of hypothalamo-hypophysis system and sexual systems in children. Pathology of growth in children.

Topic 7. Diseases of hypothalamo-hypophysis system. Obesity in children.

The topics of the lecture course reveal the problematic issues of the relevant sections of the discipline.

Themes of lectures:

1. Anemias in children.
2. Hemoblastosis in children.
3. Hemorrhagic diathesis in children.
4. Diseases of hypothalamo-hypophysis system in children.

Practical classes provide a theoretical justification of the main issues of the topic and the acquisition of the following practical skills:

- 1) examination of patients and determination of clinical features of the main diseases of the pathology of the blood system and endocrine system;
- 2) interpretation of the results of laboratory and instrumental examinations;
- 3) to compile algorithms for treatment, rehabilitation and prevention of diseases of the blood and endocrine systems in children;
- 4) solving situational and emergency tasks on the pathology of the blood system and endocrine system in children.

In practical classes, students write prescription drugs in workbooks, formulate conclusions on the topic and solve clinically-oriented situational problems and test tasks.

The ***student's independent work*** involves preparation for practical classes and development of practical skills, study of topics for independent extracurricular work, elaboration of scientific literature and writing reviews according to recommended topics for individual work. The control of studying the topics of independent work is carried out on the final module.

Individual work includes the study of scientific literature, preparation of reviews on the topics provided for presentation at meetings of the student scientific circle, the implementation of scientific and practical research, participation in specialized competitions, scientific and practical conferences, competitions of student research papers.

Calendar plans of practical classes, thematic plan of independent extracurricular work, volume and directions of individual work are published on the website of the department.

Route of receiving materials: Department of Pediatrics №2 / Student / Full-time / Medicine / 5th year / Educational and methodical materials.

Access to materials is provided from the student's corporate account s000XXX@vnmu.edu.ua.

5. Forms and methods of monitoring academic performance

Current control in practical studies	Methods: individual oral examination, solving typical situational problems, testing algorithms for emergency care, interpretation and evaluation of laboratory and instrumental studies, control of practical skills in examining the patient, test tasks with the choice of correct answers, prescription (protocol in the workplace notebooks).
Final semester control (differential credit) at the end of 9 or 10 semesters	According to the Regulation of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link https://www.vnmu.edu.ua/General information)
Learning success diagnostic tools	Theoretical questions, tests, clinically-oriented situational tasks, practical tasks, demonstration of practical skills.

6. Assessment criteria

Knowledge assessment is carried out in accordance with the Regulations of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link: <https://www.vnmu.edu.ua/General> information)

Continuous assessment	On a four point system of traditional assessments: 5 «excellent», 4 «good», 3 «satisfactory», 2 «unsatisfactory»
Final control of the discipline	Final module grade: 71-80 points - "excellent" 61-70 points - "good" 50-60 points - "satisfactory" Less than 50 points - "unsatisfactory" / did not pass
Discipline assessments:	Current academic assessment - from 72 to 120 points (conversion of the average traditional assessment of practical class on a 120-point

	scale): 60% of the grade for the discipline Final control - from 50 to 80 points: 40% of the grade for the discipline Individual work – from 1 to 12 points From 122 to 200 pointsintotal.
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Discipline Score Scale: National and ECTS

The sum of grades for all types of educational activities	Score ECTS	Score on a national scale	
		For exam, course project (work), practice	for credit test
180-200	A	Excellent	credited
170-179,9	B	Good	
160-169,9	C		
141-159,9	D	Satisfactory	
122-140,99	E	Satisfactory	-
0 – 121.99	FX	unsatisfactory with the possibility of reassembly	is not credited with the possibility of reassembling
	F	unsatisfactory with a mandatory reexamination of discipline	is not credited with mandatory reexamination of discipline

Criteria for student knowledge assessment

Assessment of oral / written response during the current assessment

The grade **"Excellent"** is given for the work in which the student correctly answered all the questions according to the topic. The answers are deep, meaningful and specific. The student must know the features of clinical manifestations of childhood pathology, general principles of diagnosis of diseases in children, the principles of their treatment.

The grade **"Good"** is given for the work in which the student correctly answered 75% of the questions and showed a fairly substantial knowledge of those issues that reflect the main sections of the curriculum. The student must know the features of clinical manifestations of childhood pathology, general principles of diagnosis of diseases in children, treatment and prevention.

The grade **"Satisfactory"** is given for the work in which the student correctly answered 50% of the questions. The answers are incomplete, mostly limited to a simple list of components, features, features, without the slightest

detail. The student must have a minimum of theoretical and practical knowledge of pediatrics.

The grade "**Unsatisfactory**" is given for work in which the student did not give any correct answer or gave only an approximate answer to two questions. The student does not have the required minimum knowledge of pediatrics.

Assessment of practical skills during the current assessment

A grade of "**Excellent**" is given to a student who knows the course and sequence of the patient's physical examination, demonstrates the correct implementation of the necessary practical skills and correctly with clear formulations of generalizations and conclusions draws up a protocol of the patient's examination.

The grade "**Good**" is given to a student who admits inaccuracies during the physical examination of the patient, but is able to identify errors and can demonstrate the implementation of practical skills in general, draws up a protocol of examination of the patient.

The grade "**Satisfactory**" is given to a student who knows the basics of the practical task, but has difficulty in conducting a physical examination of the patient, can not demonstrate the correct sequence of practical skills, can not fully interpret the results of research, sloppily draws up a protocol of examination.

A grade of "**Unsatisfactory**" is given to a student who cannot demonstrate practical skills, has significant difficulties in conducting a physical examination of the patient, violates the procedure of practical work, does not register the progress of work in the patient's examination protocol.

Assessment of test tasks during the current control

The grade "**Excellent**" is given to the student who at carrying out test control is allowed no more than 10% of incorrect answers (volume of correct answers 90-100%). Provides correct answers to all test questions when solving clinically-oriented test tasks.

A grade of "**Good**" is given to a student who makes no more than 20% of mistakes during the test. (volume of correct answers 80-89%). Provides correct answers to most test questions when solving clinical-oriented test tasks.

The grade "**Satisfactory**" is given to a student who makes mistakes in no more than 40% of test tasks (the amount of correct answers is 60.5-79%). When solving clinically-oriented test tasks, it provides the correct answers to only some questions to the test.

A grade of "**Unsatisfactory**" is given to a student who correctly solves less than 60% of the test tasks in a test survey. When solving clinical-oriented test tasks, he cannot provide the correct answers to the test questions.

Assessment of independent student work

The student's independent work is assessed during the final classes of the module of the discipline through an oral interview on topics that are not included in the plan. Evaluation of prepared messages, presentations on the selected topic is carried out by traditional evaluation

The grade **"Excellent"** is given to a student who has deeply and comprehensively revealed the problem, logically stated the main issues, give examples from medical informative sources. He is able to connect the material of this topic with the previously studied sections, which indicates the ability to analyze the studied material, as well as clearly demonstrates the importance of the acquired theoretical knowledge for practical medicine.

The grade **"Good"** is given to a student, who knows and is well versed in theoretical material, competently revealed the main issues of the topic and its medical significance, but did not go beyond the textbook, guidelines.

A grade of **"Satisfactory"** is given to a student who has revealed the basic concepts and definitions of the recommended topic, but has not fully disclosed it, does not understand the medical aspects of the topic, relate theoretical material to practice.

Assessment of individual student work

The calculation of individual points is carried out on the basis of the Regulation of the Academic process in National Pirogov Memorial Medical University (link: <https://www.vnmu.edu.ua/General> information).

12 points - added to the assessment of the discipline for a student who won a prize at the interuniversity competitions in the discipline or a prize at the Ukrainian competition of student research reports or a prize at the interuniversity / international scientific conference with the published work;

11 points - are added to the assessment of the discipline for a student who won the first prize at the intra-university Olympiad in the discipline or the first place at the student scientific conference with the published work, or participated in the Ukrainian competition of student research papers;

10 points - are added to the assessment of the discipline for a student who won a prize (II-III) at the intra-university Olympiad in the discipline or at the student scientific conference with the availability of printed work; or for participation (without a prize place) in interuniversity competitions in the discipline or a prize place in an interuniversity / international scientific conference with the availability of published work.

9 points - are added to the assessment of the discipline for a student who participated (without a prize) in the intra-university Olympiad in the discipline or student scientific conference with the presence of published work

8 points - are added to the assessment of the discipline for a student who actively participated in the student scientific group, published a paper with results

of scientific and practical research, but did not personally participate in the student scientific conference, prepared a poster report.

Assessment of oral / written response during the final control

The grade "**Excellent**" came from work when the student answered all the questions correctly. The answers are not deep, variable and specific. The student must know the features of the clinical manifestations of childhood diseases, the general principles of diagnosis and treatment.

The grade "**Good**" came from the work when the student answered 75% of the questions correctly and showed sufficient changed knowledge on these issues, which select the main sections of the curriculum. The student must know the features of clinical manifestations of childhood diseases, general principles of diagnosis, treatment and prevention.

The grade "**Satisfactory**" is given for the work in which the student correctly answered 50% of the questions. The answers are incomplete, mostly limited to a simple list of components, features, features, without the slightest detail. The student must have a minimum of theoretical and practical knowledge of childhood pathology.

The grade "**Unsatisfactory**" is given for work in which the student did not give any correct answer or gave only an approximate answer to two questions. The student does not have the required minimum knowledge of pediatric pathology.

Assessment of test tasks during the final control

The grade "Excellent" is given to the student who at carrying out test control is allowed no more than 10% of incorrect answers (volume of correct answers 90-100%). Provides correct answers to all test questions when solving clinically-oriented test tasks.

A grade of "Good" is given to a student who makes no more than 20% of mistakes during the test. (volume of correct answers 80-89%). Provides correct answers to most test questions when solving clinical-oriented test tasks.

The grade "Satisfactory" is given to a student who makes mistakes in no more than 40% of test tasks (the amount of correct answers is 60.5-79%). When solving clinically-oriented test tasks, it provides the correct answers to only some questions to the test.

A grade of "Unsatisfactory" is given to a student who correctly solves less than 60% of the test tasks in a test survey. When solving clinical-oriented test tasks, he cannot provide the correct answers to the test questions.

7. Policy of discipline / course

The student has the right to receive high-quality educational services, access to contemporary scientific and educational information, qualified tutoring during the study of discipline and mastering practical skills. The policy of the department

during the providing of educational services is a student-centered, based on normative documents of the Ministry of Education and the Ministry of Health of Ukraine, the Statute of the University and the Procedure for the Providing of Educational Services regulated by the main principles of the organization of the educational process in National Pirogov Memorial Medical University, Vinnytsya and the principles of academic integrity (link <https://www.vnmu.edu.ua/General> information).

Adherence to the rules of National Pirogov Memorial Medical University, Vinnytsya, safety techniques in practical classes.

Occupational safety instruction with students during labor, professional training in health care institutions is conducted by the head of the structural unit of the institution or the student's immediate supervisor. Before the beginning of practical classes in the first lesson (at the beginning of each semester) the teacher, according to the requirements of the Job description, conducts instruction on labor protection (including rules of personal hygiene, sanitary regime, danger during supervision of patients, etc.). Targeted instruction is conducted with students in the case of organization outside of educational activities (competitions, conferences, etc.).

Requirements for preparation for practical classes. The student must be prepared for a practical lesson, situational tasks for the current topic should be solved in a workbook. They should come to class on time, without delay. A student who is late more than 10 minutes for class is not allowed to be present and must rework it in the prescribed manner.

In practical classes, the student must be dressed in a work uniform (medical gown, hat, medical mask, changeable shoes). Students who do not have a work uniform are not allowed to study.

The student must follow safety rules during practical classes and in the hospital. When discussing theoretical issues, students should demonstrate tolerance and respect for their colleagues and the teacher.

Usage of mobile phones and other electronic devices.

The use of mobile phones and other electronic devices in the classroom is allowed only during electronic testing or surveys.

Academic integrity. When studying the discipline, the student must be guided by the Code of Academic Integrity and Corporate Ethics of National Pirogov Memorial Medical University, Vinnytsya (link: <https://www.vnmu.edu.ua/General> information)/ Code of Academic Integrity). In case of violation of the norms of academic integrity during the current and final controls student receives a grade of "2" and must work it out to his teacher in the prescribed manner within two weeks after receiving an unsatisfactory assessment).

Missed classes. Missed classes are reworked in the manner prescribed by the Regulations on the organization of the educational process in National Pirogov Memorial Medical University, Vinnytsya (link <https://www.vnmu.edu.ua/General> information / Basic documents) at the time specified in the schedule (published on the website of the department <https://www.vnmu.edu.ua/> Department of Pediatrics

№2 #) to the teacher who conducts a practical lesson. To complete the missed lesson, the student must answer questions of the topic writing or orally.

The procedure for admission to the discipline final control is giving by the Regulations on the organization of the educational process in National Pirogov Memorial Medical University, Vinnytsya (link <https://www.vnmu.edu.ua/> General information / Basic documents). Students who do not have missed practical classes and lectures and received an average traditional grade of at least "3" are allowed to pass final control.

Additional points. Individual points in the discipline that student can receive for individual work, the amount of which is published on the website of the department in the teaching materials of the discipline and is determined by the results of his individual work according to Regulation of the Academic process in National Pirogov Memorial Medical University, Vinnytsya (link <https://www.vnmu.edu.ua/General> information).

Conflict resolution. In case of misunderstandings and complaints to the teacher because of the quality of educational services, knowledge assessment and other conflict situations, student should submit his / her claims to the teacher. If the issue is not resolved, the student has a right to apply to the head of the department according to Complaints Consideration Procedure (<https://www.vnmu.edu.ua/> General information / Basic documents).

Politics in time of remote learning. Distance learning regulated by the Regulations of the elements of remote learning in National Pirogov Memorial Medical University, Vinnytsya (<https://www.vnmu.edu.ua/> General information). The main training platforms for studying are Microsoft Team and Google Meets. Practical classes and lectures, exercises and consultations during distance learning is published on the website of the department (<https://www.vnmu.edu.ua/Department of Pediatrics№2/Student> or <https://www.vnmu.edu.ua/Department of Pediatrics№2/News>).

Feedback from teachers is via messengers (Viber, Telegram, WhatsApp) or e-mail (at the teacher's choice) during working hours.

8. Educational resources.

Educational and methodological support of the discipline is published on the website of the department (<https://www.vnmu.edu.ua/Department of Pediatrics№2/To students>).

1). Main Literatures

1. Nelson textbook 20th Edition by Robert M. Kliegman, MD, Richard E. Behrman, MD, Hal B. Jenson, MD and Bonita F. Stanton, MD. Видавництво: SAUNDERS
2. Hoffman R. (2018). Hematology. Basic Principles and Practice, 7th edition.
3. Endocrinology: Adult and Pediatric E-Book (2015) / J. Larry Jameson; Leslie J. De Groot, 2015. 2700 pages; ISBN 9780323321952.

4. Harrison's Endocrinology, 4E (2016) / J. Larry Jameson. 2016, ISBN 9781259835735.

2). Additional Literatures

1. American Diabetes Association's Standards of Medical Care in Diabetes — 2018. Diabetes Care. 2018;41(Suppl 1):S1-S159
2. Pediatric endocrinology and inborn errors of metabolism, Second Edition / Kyriakie Sarafaglou; associate editors, Georg Hoffmann, Karl Roth; consulting editor, Howard Courtney. McGrawHill Medical, 2017. 1008 pages; ISBN 9780071773133
3. American Society of clinical oncology educational book. American Society of clinical oncology. Annval Meeting. 2014. — 441 p. DOI: 10.14694/EdBook_AM.2014
4. American Thyroid Association Statement on Postoperative Hypoparathyroidism: Diagnosis, revention, and Management in Adults_/ Lisa A. Orloff, *et al.*, THYROID Volume 28, Number 7, 2018. doi: 10.1089/thy.2017.0309
5. Speiser PW, Arlt W, Auchus RJ, Baskin LS, Conway GS, Merke DP, et al. Congenital Adrenal Hyperplasia Due to Steroid 21-Hydroxylase Deficiency: An Endocrine Society Clinical Practice Guideline. J Clin Endocrinol Metab. 2018 Nov 1;103(11):4043–88, <https://doi.org/10.1210/jc.2018-01865>
6. Transfusion Medicine and Scientific Developments. Edited by A.W.M.M. Koopman-van Gemert. 2017. 126 p. DOI: 10.5772/66265.
7. World Health Organization Obesity and Overweight. 2017 <http://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight> (last accessed June 12, 2018)

3). Electronic resources.

General:

Medscape Pediatrics: <https://www.medscape.com/pediatrics>

Pubmed portal: <https://pubmed.ncbi.nlm.nih.gov/>

UpToDate: <https://www.uptodate.com/home>

British Medical Journal Learning: <https://new-learning.bmj.com/>

Disease Control Center: <https://www.cdc.gov/>

Medical calculators: <https://www.mdcalc.com/>

Body mass index calculator: <https://www.bmi-calculator.net/>

Sites Pediatric Associations:

The European Academy of Paediatrics: <https://www.eapaediatrics.eu/>

The American Academy of Pediatrics: <https://www.aappublications.org/>

European Paediatric Association/Union of National European Paediatric Societies and Associations: <http://www.epa-unepsa.org/>

European Society for Paediatric Research (ESPR): <https://www.espr.eu/>
 European Society for Paediatric Endocrinology: <https://www.eurospe.org/>
 The European Society For Paediatric Infectious Diseases:
<https://www.espid.org/>
 American Heart Association: <https://www.heart.org/>
 European Resuscitation Council: <https://www.erc.edu/>
 European Academy of Allergy & Clinical Immunology:
<https://www.eaaci.org/>
 The European Respiratory Society: <https://www.ersnet.org/>
 Society for Endocrinology: <https://www.endocrinology.org/>
 International Society of Endocrinology: <https://www.isendo.org/>
The European Hematology Association: <https://ehaweb.org/>
 American Society of Hematology <https://www.hematology.org/>
 European Society for Blood and Marrow Transplantation:
<https://www.ebmt.org/>
 The American Society of Pediatric Hematology/Oncology: <http://aspho.org/>
European Renal Association - European Dialysis and Transplant
 Association: <https://www.era-edta.org/en/>
 International Society of Nephrology: <https://www.theisn.org/>
 American Society of Nephrology: <https://www.asn-online.org/>
 European Society of Cardiology: <https://www.escardio.org/>
 American College of Cardiology:
<https://www.acc.org/#sort=%40commonsortdate%20descending>
 The European Society for Paediatric Gastroenterology Hepatology and
 Nutrition (ESPGHAN): <https://www.espghan.org/>
 International Society for Pediatric and Adolescent Diabetes (ISPAD):
<https://www.ispad.org/page/ELearningPortal>

4) Methodical recommendations for practical classes and individual students work, consultations (once a week according to the schedule of consultations), lectures, presentations.

9. The schedule and distribution of groups by teachers is published on the website of the department (<https://www.vnmueu.ua/> Department of Pediatrics №2 / Student).

10. Questions for the final control (differential test in the discipline are published on the web page of the department (<https://www.vnmueu.ua/> Department of Pediatrics №2 / Student).

The syllabus of the discipline «Pediatrics» was discussed and approved at the meeting of the department Pediatric №2 (record № 1, dated "__30__" __08__ 2022)

Responsible for the academic
Discipline «Paediatrics»

Ass-professor Hennadii RUDENKO

Head of the Department
of Pediatrics №2

professor of HEI Veronika DUDNYK



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