

MEDICAL UNIVERSITY – PLOVDIV

FACULTY OF MEDICINE

DEPARTMENT OF PEDIATRICS AND MEDICAL GENETICS

ACADEMIC STANDARD FOR THE COURSE “PEDIATRICS”

For professional specialty “Medical laboratory technician” (X-ray imaging)

Of the Medical College of the MU- Plovdiv

1. AIM of the training in “Pediatrics”

The training in the discipline "Pediatrics" in the course of study for the specialty degree "Bachelor" "Medical Laboratory Technician" aims to familiarize the students with the anatomical and physiological features (AP) of the child's body and the most common diseases of individual systems. Emphasis is placed on the diseases that future midwives will encounter in their daily practice - diseases of the respiratory, blood, excretory, endocrine, cardiovascular and nervous systems, as well as the specific knowledge they must have to care for these children. An important part of the training is to acquaint them with some acute and emergency conditions in Pediatrics that they will encounter. Emphasis is placed on the approach to communication with the child depending on its condition and overcoming its fear of performing various manipulations. The importance and the place of the Medical Specialist- Medical Laboratory Technician as a link in the chain of specialists carrying out the diagnostic and treatment process are determined. In this way, they will be able to successfully and safely apply their knowledge and skills when working with children.

The implementation of this program will support their successful professional realization. The main goal of the specialty corresponds to the mission and the concept of the university, it is in accordance with the volume and the credit rating of the discipline (according to ESTS) for the educational degree.

The main tasks for achieving the goal are achieved by acquainting students with the peculiarities of the child's body, the specific pathology and the necessary workup and therapeutic interventions:

- Familiarization with AP of the newborn, infant and child at different ages, with the indicators of growth and development and the necessary environmental conditions for optimal development.
- Introduction to the most common diseases in childhood and the necessary diagnostic research and therapeutic interventions.
- Introduction to the importance of environmental factors, prevention and treatment of the most common diseases in children
- Development of students' skills for contact and work with children.

After completing the training, students must have the following knowledge and skills:

- To know the AP of the newborn, infant and child at different ages, growth and development indicators
- To know the necessary optimal environmental conditions for the normal development of the child.
- To know the basic principles of nutrition of newborns, infants and children from 1 to 3 years
- To know the epidemiology, etiology and clinical picture of the most common diseases in childhood
- To know the principles and methods of preventive medicine
- To know the possibilities for primary and secondary prophylaxis

2. Content of the course

	Exam	Academic hours			Academic year/semester
	Semester	Total hrs	Lectures	Practicals	
Pediatrics	IV	30	26	4	II yr/ IV sr.

CURRICULUM

Lectures

N	Topic	Acad. hrs
1	Introduction to pediatrics. Basic biological features of the child's body. Periods of childhood.	2
2	Physical development of the child. Disorders in growth.	2
3	Neuropsychological development of the infant and young child aged 1 to 3 years. Mental retardation.	2
4	Diseases of calcium-phosphorus metabolism in childhood - rickets, spasmophilia, hypervitaminosis D, osteoporosis.	2
5	Newborns – anatomo-physiology	1
6	Neurological diseases of the newborn - HIE, intracranial	2

	hemorrhage, neonatal seizures. Birth trauma.	
7	Acute upper respiratory system diseases. Acute bronchitis. Bronchiolitis.	2
8	Acute and chronic pneumonia. Cystic fibrosis. Bronchial asthma. Respiratory failure - diagnosis and treatment	2
9	Congenital heart malformations. Cardiovascular failure. Hypertension.	2
10	Diseases of the digestive system	1
11	Neuroinfections - meningitis, encephalitis, neuritis of the facial nerve, polyradiculoneuritis.	1
12	Hemorrhagic diathesis. Malignant diseases.	2
13	Diseases of the urinary system in childhood	2
14	Emergencies in pediatrics - seizures, increased intracranial pressure, coma, anaphylactic shock.	2
	Total	26

Practicals

N	Topic	Academic hrs.
1	Anatomical and physiological features and care of the newborn.	2
2	Respiratory failure - diagnosis and treatment.	2
	Total	4

3. Prerequisites

Students must have in-depth knowledge of the human anatomy and physiology. Based on this knowledge, they will be able to learn the peculiarities of the anatomy and physiology of the child. It is necessary to be able to learn, analyse and reproduce the provided information about the causes, manifestations, deviations in the physiological constants of the internal environment of the child's body and the possibilities for treatment and prevention of the studied diseases.

4. Academic resources

Pediatrics teachers for the bachelor's degree in Medical Specialist- Medical Laboratory Technician must be a habilitated person or a distinguished specialist with the PhD degree of Doctor of Medicine. He must have knowledge and experience in conducting theoretical and practical training of students. The lecturer must have outstanding abilities in the teaching specialty - specialty in "Children's Diseases" and a narrow specialty in the same, scientific publications and participation in national and international scientific forums.

5. Material resources

For the successful conduct of the theoretical and practical classes in "Pediatrics" for the specialty "Bachelor" "Medical Specialist- Medical Laboratory Technician" it is necessary to have a room for theoretical classes, equipped with multimedia, screen, computer with the ability to play presentations. Personal protective equipment (aprons, masks, socks) and hand disinfectants need to be available to prevent trainees from becoming infected with infectious diseases.

6. Lecture training

Presentations are prepared and provided to students so that the necessary knowledge can be obtained.

7. Practical Training

Conducted in small groups. Methodological guidelines, manuals and clinical tasks are provided for the practical exercises. Individual and team tasks are set.

8. Information resources. Basic literature. Websites

The teacher must have developed lectures on the subject, which he also presents on paper. The teacher develops a list of recommended literature in the discipline, for each of its components with a priority of the available sources. Each year, students receive a list of sites with relevant and up-to-date information.

9. Control works /tests

The current control of the acquired knowledge is done by conducting tests or clinical tasks. Students are provided with timely information and explanations of the results of the control, which will support their further preparation. The results of these tests are included as a component in the final assessment for the semester.

10. Independent work and commitment of the student

The independent work of the student is guided by the teacher, who guides them in finding literary sources and in the methods of their assimilation. Training tests are provided, incl. on line, for independent work and exercises of students.

11. Cooperation between students and the teaching team

This cooperation should be expressed in:

- Cooperation of the teacher with the student for his preparedness, current difficulties in mastering the material and opportunities with an individual learning program to achieve more.
- Individual consultations are used if necessary.

12. Exams

The semester work marks are provided for the assessment of the students in the curriculum of the specialty: at least two (one in the middle and one at the end of the semester) written tests.

13. Assessment standards:

The standards for assessing the student's achievements are defined as follows:

*Poor (2) receives a student with scarce knowledge, which cannot serve as a basis for upgrading the next levels of education in other clinical disciplines.

*Average (3) receives a student who reproduces the knowledge in a "ready-made scheme", lacking the main points of the developed topic and readiness for independent use of the acquired knowledge and professional skills; the terminology is not mastered in a satisfactory way; the exposition is characterized by poor language; only some basic practical skills have been mastered.

*Good (4) receives a student who develops the topic descriptively, reproductively, has limited independence in using the acquired knowledge and acquired professional competencies; in the exposition, although there is a good language culture, inaccuracies in the concepts used are allowed; basic practical skills have been acquired, but not to their full extent, and there are gaps.

*Very good (5) gets a student who develops the topic independently productively, non-standardly, looking for a new algorithm and analysis of the used literature data; makes an attempt to present and substantiate his thesis; adequately uses the concepts from the scientific field of the studied discipline, has a good language culture; with minimal gaps.

*Excellent (6) is awarded to a student who independently, logically and creatively presents the topic; reasonably and originally uses and interprets the literature related to the specific issue; is well informed and ready to use the acquired knowledge and professional competencies; there is accuracy and a rich linguistic culture of the exposition. There are no gaps.

14. Formation of the final mark

It is determined by:

1. Mark from the final written exam (test)
2. Marks of the assessment of the current control

Final assessment = k_1 * assessment of current control + k_2 * assessment of written exam,

Where $k_1 = 0.3$; $k_2 = 0.7$

If one of the components of the final grade is Poor (2), then the final mark is necessarily Poor (2).

Provision of the students' access to exam materials and results is fixed within 5 working days after the exam.

Developed by:.....

Assoc. Prof. dr I. Geneva, PhD

Updated and approved by The Departmental Council, No. 3 of May 29, 2020.

Approved by:/Signature/

/ Prof. Dr. I. Ivanov, MD /

Head of the Department