



BOGOMOLETS NATIONAL
MEDICAL UNIVERSITY

**EDUCATIONAL AND SCIENTIFIC INSTITUTE OF MEDICINE
DEPARTMENT OF PEDIATRICIES № 2**

APPROVE

Vice-Rector of the Higher Education Institution of
Bogomolets National Medical University.

for Scientific, Pedagogical and Educational Work,
Doctor of Medical Sciences, professor

Oleg Vlasenko

« » _____ 2026

**WORK PROGRAM OF WORK PROGRAM OF THE ACADEMIC
DISCIPLINE**

Pediatrics with pediatric infectious diseases (Module Pediatrics)

Educational level - second (master's) level of higher education

Branch knowledge – 22 Health care and social security

Specialty - 222 Medicine,

Educational program - Medicine

Form study - full-time

2026 - 2027 academic year

Work program of the discipline Pediatrics with pediatric infectious diseases
(Module Pediatrics) for 5th year students of Center for training of foreign citizens

Discussed and approved at the meeting of the Department of Pediatrics № 2
Protocol №. 1 dated 27.08. 2026

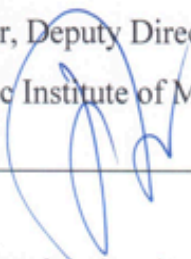
Approved by the Central Medical Council for Pediatric Disciplines
Protocol № 1 dated 28.08. 2026

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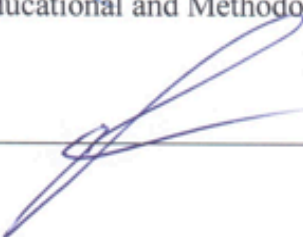
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DESCRIPTION OF THE ACADEMIC DISCIPLINE

Name of the discipline: "Pediatrics with childhood infectious diseases (Pediatrics)"

Code disciplines – **MC 30.**

Number loans ECTS - **3 credits**

General amount hours - **90 hours** (Lectures - 6 hours; Practical classes - 54 hours, IWS - 30 hours)

Form control – **final semester control .**

of study – 2.8

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the academic discipline
		full-time education
Number loans – 3	Field of knowledge -I Health care and social security Code disciplines – OK 30.	Regulatory
Number of hours – 90	Educational level: II (Master's)	Lectures – 6 hours
Weekly hours for full-time study: classrooms – 21.4 student's independent work – 10.7		Practical classes - 54 hours
		Laboratory – 0 hours
		Independent work 30 hours.
		Individual tasks: - patient care , writing academic case histories
		Type of control: Final semester test

GOALS, EXPECTED LEARNING OUTCOMES AND LEARNING OUTCOMES ASSESSMENT CRITERIA

The purpose of teaching the academic discipline "Pediatrics with pediatric infectious diseases (Pediatrics)" is: to form the ability to use acquired knowledge, skills, abilities, general and special competencies, as well as components of scientific research to solve professional tasks of a doctor in the field of health care, to acquire general and professional competencies to achieve program learning outcomes in the most common diseases of newborns, diseases of the blood system and endocrine system in children .

According to the requirements of the “Medicine”, the discipline ensures that students acquire *the following competencies*:

• *Integral (IC):*

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 (GC):*

GC1. Ability for abstract thinking, analysis and synthesis.

GC 2. Ability to learn and master modern knowledge.

GC 3. Ability to apply knowledge in practical situations.

GC 4. Knowledge and understanding of the subject area and understanding of professional activity.

GC 5. Ability to adapt and act in a new situation.

GC 6. Ability to make informed decisions.

GC 7. Ability to work in a team.

GC 8. Ability for interpersonal interaction.

GC 10. Ability to use information and communication technologies.

GC 11. Ability to search, process and analyze information from various sources.

GC 12. Determination and persistence in achieving assigned tasks and assumed responsibilities.

GC 13. Awareness of equal opportunities and gender issues.

GC 14. The ability to exercise one's rights and obligations as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, and the rights and freedoms of man and citizen in Ukraine.

GC 15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and

engineering, to use various types and forms of physical activity for active recreation and leading a healthy lifestyle.

Special (professional, subject) (SK):

SC 1. Ability to collect medical information about the patient and analyze clinical data.

SC 2. Ability to determine the necessary list of laboratory and instrumental studies and evaluate their results.

SC 3. Ability to establish a preliminary and clinical diagnosis of the disease.

SC 4. Ability to determine the necessary work and rest regime in the treatment and prevention of diseases.

SC 5. Ability to determine the nature of nutrition in the treatment and prevention of diseases.

SC 6. Ability to determine the principles and nature of treatment and prevention of diseases.

SC 7. Ability to diagnose emergency conditions.

SC 8. Ability to determine tactics and provide emergency medical care.

SC 9. Ability to conduct medical evacuation measures.

SC 10. Ability to perform medical manipulations.

SC 11. Ability to solve medical problems in new or unfamiliar environments with incomplete or limited information, taking into account aspects of social and ethical responsibility.

SC 12. Ability to determine tactics for managing physiological pregnancy, physiological childbirth and the postpartum period. Skills in counseling on family planning and selection of a contraceptive method.

SC 13. Ability to carry out sanitary and hygienic and preventive measures.

SC 14. Ability to plan and carry out preventive and anti-epidemic measures against infectious diseases.

SC 16. Ability to maintain medical records, including electronic forms.

SC 21. Clearly and unambiguously communicate one's own knowledge, conclusions, and reasoning on health care problems and related issues to specialists and non-specialists, including students.

SC 23. Ability to develop and implement scientific and applied projects in the field of healthcare.

SC 24. Compliance with ethical principles when working with patients and laboratory animals.

SC 25. Adherence to professional and academic integrity, responsibility for the reliability of the obtained scientific results.

Program Learning Outcomes (PLO):

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

PLO 2. Understanding and knowledge basic and clinical biomedical sciences, on equal to sufficient for solving professional problems in the field of healthcare.

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

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

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

PLO 6. Establish a final clinical diagnosis by making a reasoned decision and analyzing the obtained subjective and objective data of clinical, additional

examination, and conducting differential diagnostics, adhering to relevant ethical and legal norms, under control a head physician in a healthcare facility.

PLO 7. To prescribe and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) (according to list 4) for patients with diseases of organs and body systems for differential diagnosis of diseases.

PLO 8. Define main clinical syndrome or than conditioned weight state victim/victim by making a reasoned decision and assessing the condition person under any circumstances (in conditions institution security health, by its borders) in including . in conditions extraordinary situations and combat actions, in field conditions, in conditions of lack of information and limited time.

PLO 9. Determine the nature and principles of treatment of patients (conservative, surgical) with diseases, taking into account the patient's age, in the conditions of a healthcare institution, outside it and at the stages of medical care. evacuation, in including . in field conditions, on basis previous clinical diagnosis, adhering to relevant ethical and legal norms, by making a reasoned decision based on existing algorithms and standard schemes, if necessary, be able to justify the expansion of the standard scheme personalized recommendations under control head physician in conditions medical institutions.

PLO 10. Determine the necessary work, rest, and nutrition regimen based on the final clinical diagnosis, adhering to relevant ethical and legal norms, by making a reasoned decision based on existing algorithms and standard schemes.

PLO 12. Assess the general condition of the newborn child by making an informed decision based on existing algorithms and standard schemes, adhering to relevant ethical and legal norms.

PLO 13. Assess and monitor the child's development, provide recommendations on feeding and nutritional characteristics depending on age, and organize preventive vaccinations according to the calendar.

PLO 14. Determine tactics and provide emergency medical assistance in emergency situations with limited time according to existing clinical protocols and treatment standards.

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

PLO18. Determine the state of functioning and limitations of a person's vital activities and the duration of incapacity with the execution of relevant documents, in a healthcare facility based on data on the disease and its course, the characteristics of the person's professional activity, etc. Maintain medical documentation regarding the patient and the population based on regulatory documents.

PLO19. Plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.

PLO 20. Analyze the epidemiological situation and carry out measures for mass and individual, general and local prevention of infectious diseases.

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

PLO 23. Assess the impact of the environment on human health to assess the morbidity of the population.

PLO 24. Organize the necessary level of individual safety (one's own and those in care) in the event of typical dangerous situations in the individual field of activity.

PLO 25. Of course and definitely inform own knowledge, conclusions and argumentation with problems security health and related issues to specialists and non-specialists.

PLO 26. Manage work processes in the healthcare sector that are complex, unpredictable and require new strategic approaches, organize the work and

professional development of staff taking into account the acquired skills of effective teamwork, leadership positions, proper quality, accessibility and fairness, ensuring the provision of integrated medical care.

PLO 27. Communicate fluently in the state language and English, both orally and in writing, to discuss professional activities, research, and projects .

PLO 29. Plan, organize and conduct events from specific prevention infectious diseases, including according to the National Calendar of preventive vaccinations, both mandatory and recommended. Manage vaccine residues, organize additional vaccination campaigns, including immunoprophylaxis measures.

Matrix competencies (see appendix)

Criteria evaluation results teaching

The student's academic achievements are assessed according to mutually agreed 5 ball (5 – "perfectly", 4 – "good", 3 – “satisfactory”, 2 – “unsatisfactory”), the educational institution scale (from 0 to 200 points), the national ECTS scale (A, B, C, D, E, FX, F).

Types of control: current, final.

Form of control: final semester control.

COURSE PROGRAM

"Pediatrics with pediatric infectious diseases (Pediatrics)"

Consists of 3 content modules:

- 1. Content module 1 Neonatology**
- 2. Content module 2 Diseases of the blood system in children**
- 3. Content module 3 Diseases of the endocrine system in children**

CONTENT MODULE 1 Neonatology

Topic 1. Organization of neonatal care in Ukraine. Medical care for a healthy newborn child.

Indicators of the quality of medical care for newborns: perinatal mortality, neonatal morbidity and mortality. Regionalization of perinatal care. Protocol for medical care for a healthy newborn child: sequence of actions when providing medical care for a healthy newborn child in the delivery room, ten steps of the thermal chain, assessment of the child's general condition according to the Apgar scale, scheme of the initial medical examination of the newborn, care for the umbilical cord, umbilical cord remnant, umbilical wound, prevention of hemorrhagic disease of the newborn, vaccination of newborns, screening examination of newborns.

Topic 2. Premature babies. Babies who are small for gestational age.

Criteria for determining prematurity. Assessment of morphological and neuro-functional maturity of prematurely born children (according to the Ballard scale). Pathological conditions characteristic of prematurely born children. Principles of providing medical and preventive care. Features of enteral and parenteral nutrition of prematurely born children. Emergency care for emergencies: hypothermia, hypoglycemia, apnea. Intrauterine growth retardation: causes, clinical variants, features of early neonatal adaptation.

Topic 3. Asphyxia of the newborn. Birth trauma.

Birth asphyxia: definition, causes, classification, diagnostic criteria. Initial, resuscitation and post-resuscitation care for a newborn. Indications, contraindications, complications and stages of therapeutic hypothermia

Birth trauma: maternal and fetal factors, typical manifestations of various types of birth trauma (soft tissue damage, paresis, paralysis, bone fractures, intracranial hemorrhages). Modern methods of diagnosing intracranial hemorrhages. Principles of treatment of various types of birth trauma.

Topic 4. Neonatal respiratory distress syndrome (RDS). Neonatal pneumonia.

Neonatal respiratory distress syndrome: definition, risk factors, pathogenesis, clinical signs, diagnostic methods, differential diagnosis. Principles of treatment: stabilization of the condition at birth, surfactant replacement therapy, respiratory support methods. Antenatal steroid prophylaxis.

Neonatal pneumonia: definition, etiology, pathogenesis, classification, features of the course of pneumonia in premature infants. Principles of antibiotic therapy pneumonia of newborns.

Topic 5. Hemolytic disease of the newborn (HDN). Hemorrhagic syndrome in newborns.

Hemolytic disease of the newborn: etiology, pathogenesis, classification, clinical and laboratory criteria for different forms of the disease, differential diagnosis. Phototherapy: mechanism of action, rules of conduct, complications. Blood exchange transfusion operation: indications, technique, complications. Specific prevention of hemolytic disease of the newborn. Prognosis. Clinical manifestations of bilirubin-induced neurological dysfunction.

Causes of hemorrhagic syndrome in newborns. Hemorrhagic disease of the newborn: definition, pathogenesis, classification, clinical features, diagnostics, differential diagnostics, treatment, emergency care, prevention.

Topic 6. Intrauterine infections of newborns (TORCH infections).

TORCH infections of newborns: etiology, pathogenesis, clinical manifestations, diagnostics, differential diagnostics, treatment, prevention, prognosis.

Topic 7. Bacterial infections of newborns.

Purulent-inflammatory diseases of the skin and subcutaneous fat of newborns, diseases of the umbilical cord, umbilical wound and umbilical vessels:

classification, etiology, pathogenesis, clinical features, diagnostics, differential diagnosis, treatment, prevention, prognosis. Sepsis of newborns: definition, classification, etiology, pathogenesis, clinical features, diagnostics, differential diagnosis, treatment, prevention, prognosis.

CONTENT MODULE 2 Diseases of the blood system in children

Topic 8. Anemias in children (deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis).

Anemias in children (deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis): definition, etiology, pathogenesis, classification, clinical manifestations, diagnostics, differential diagnostics, treatment, prevention, prognosis.

Topic 9. Hemorrhagic diseases in children.

Classification of hemostasis disorders. Causes and risk factors for hemorrhagic diseases in children (hemophilia, idiopathic thrombocytopenic purpura, hemorrhagic vasculitis). The main links in the pathogenesis of hemorrhagic diseases in children. Classification of hemorrhagic diseases in children. Typical elements of the rash in different types of hemorrhagic diseases. Clinical manifestations of hemorrhagic syndrome in different hemorrhagic diseases. Differential diagnosis of hemorrhagic diseases in children. Criteria for laboratory diagnosis of hemorrhagic diseases. Principles of treatment and prevention of hemophilia, idiopathic thrombocytopenic purpura, hemorrhagic vasculitis. Emergency care for bleeding in children.

Topic 10. Leukemia and lymphoma in children.

Hemoblastoses, definition, classification, etiology and pathogenesis. Acute leukemias in children: clinical options course, diagnostics, differential diagnostics. Principles of leukemia treatment, complications of cytostatic therapy. Prognosis.

Lymphomas in children: clinical features, diagnostics, differential diagnostics, principles of treatment, prognosis.

CONTENT MODULE 3 Diseases of the endocrine system in children

Topic 11. Diabetes in children.

Types of glycemia disorders in diabetes mellitus in children. Etiology, triggering factors, pathogenetic mechanisms of development, stages of development, clinical and laboratory manifestations of type 1 diabetes mellitus in children. Features of the clinical course of diabetes mellitus depending on age. Differential diagnosis of type 1, type 2 and MODY diabetes mellitus in children. Principles of diabetes therapy. Diet therapy, system of bread units in the diet of patients with diabetes. Insulin therapy for type 1 diabetes mellitus: groups of insulin preparations, methods of its use, daily insulin requirement in children at different periods of the disease. Diabetic ketoacidosis and ketoacidotic coma in children: causes of occurrence, clinical and laboratory manifestations, principles of therapy. Hypoglycemia and hypoglycemic coma in children: causes of occurrence, clinic, diagnostics, emergency care. Differential diagnosis of hypoglycemic and ketoacidotic coma in children and adolescents. Long-term complications of type 1 diabetes mellitus in adolescence.

Topic 12. Thyroid disease in children.

The most common disorders and diseases of the thyroid gland in children. Methods for diagnosing thyroid diseases. Conditions associated with elevated TSH levels. Causes of hypothyroidism in children and etiology of congenital hypothyroidism. Diagnosis of congenital hypothyroidism: symptoms and screening testing. Treatment and prognosis in congenital hypothyroidism. Acquired hypothyroidism, causes, clinical features, diagnosis, treatment. Diagnostic criteria for Hashimoto's disease, Endemic goiter, diagnosis, treatment, prognosis. Main clinical manifestations and diagnosis of Graves' disease. Treatment of Graves' disease in children. Thyrotoxic crisis, causes, clinical features, emergency care. Diagnosis and treatment of thyroid cancer in children.

Topic 13. Diseases of the hypothalamic-pituitary system and gonads in children.

Etiology, pathogenesis, clinical picture, diagnostic methods, differential diagnosis, treatment and prevention of pituitary dwarfism, diabetes insipidus, hypogonadism, cryptorchidism, precocious puberty, delayed puberty, Turner syndrome, Klinefelter syndrome, ovotesticular disorder of sex formation, congenital adrenal hyperplasia, obesity in children.

STRUCTURE OF THE ACADEMIC DISCIPLINE

"Pediatrics with pediatric infectious diseases (Pediatrics)"

Module and topic names	Number of hours				
	Total	Lecture s	Practical classes	IWS	
				Individual	Self
Neonatology, diseases of the blood system and endocrine system in children					
Content module 1 Neonatology					
1 Organization of neonatal care in Ukraine. 1. Medical care for a healthy newborn child.	6.0		4.0		2.0
2. Premature babies. Babies who are small for gestational age.	6.0		4.0		2.0
3. Neonatal asphyxia. Birth trauma.	7.0	2.0	4.0		1.0
4. Neonatal respiratory distress syndrome. Neonatal pneumonia	6.0		4.0		2.0
5. Hemolytic disease of the newborn (HDN). Hemorrhagic syndrome in newborns .	6.0		4.0		2.0
6. Intrauterine infections of newborns (TORCH infections)	6.0		4.0		2.0
7. Bacterial infections of newborns	6.0		4.0		2.0
Content module 2 Diseases of the blood system in children					

Module and topic names	Number of hours				
	Total	Lectures	Practical classes	IWS	
				Individual	Self
8. Anemias in children (deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis)	7, 0	2.0	4.0		1.0
9. Hemorrhagic diseases in children	6.0		4.0		2.0
10. Leukemia and lymphoma in children	6.0		4.0		2.0
Content module 3. Diseases of the endocrine system in children					
11. Diabetes in children	7.0	2.0	4.0		1.0
12. Thyroid disease in children	6.0		4.0		2.0
13. Diseases of the hypothalamic-pituitary system and gonads in children	6.0		4.0		2.0
Individual work: Patient care, writing a medical history	4.0			4.0	
Final semester test	5.0		2.0		3.0
Total hours in the discipline	90	6	54	4	26

LECTURE TOPICS

No. of the company	Topic name	Number of hours
Neonatology, diseases of the blood system and endocrine system in children		
1.	Neonatal asphyxia. Birth trauma of newborns	2.0
2.	Anemias in children: deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis	2.0

No. of the company	Topic name	Number of hours
3.	Diabetes in children	2.0
Total from the discipline		6

TOPICS OF PRACTICAL CLASSES

No	Topic name	Hours
Neonatology, diseases of the blood system and endocrine system in children		
1.	Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby	4.0
2.	Premature babies. Babies who are small for gestational age.	4.0
3.	Neonatal asphyxia. Birth trauma.	4.0
4.	Respiratory distress syndrome (RDS). Neonatal pneumonia.	4.0
5.	Hemolytic disease of the newborn (HDN). Hemorrhagic syndrome in newborns.	4.0
6.	Intrauterine infections of newborns (TORCH infections)	4.0
7.	Bacterial infections in newborns	4.0
8.	Anemias in children: deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis.	4.0
9.	Hemorrhagic diseases in children	4.0
10.	Leukemias and lymphomas in children	4.0
11.	Diabetes in children	4.0
12.	Thyroid disease in children	4.0

N o	Topic name	Hours
13.	Diseases of the hypothalamic-pituitary system and gonads in children	4.0
14.	Final semester test	2.0
<i>Total from the discipline</i>		54

INDEPENDENT WORK

N o	TOPIC	Hours	View control
1	Preparation for practical classes	23	Current control
2	Preparation for the final semester examination	3	Final semester test
3	Preparing and writing an academic medical history	4	Final control
	Total hours	30	

INDIVIDUAL TASKS

an individual task in the form of patient care and writing an academic case history.

The assessment of the medical history as a mandatory individual work of the student takes place during its completion in the process of individual work of the teacher with the student.

A grade of "5" is given if the student conducted a complete clinical examination of a sick child, described its results, correctly assessed the patient's

clinical condition, clinical changes in the organs and systems of the body, the results of laboratory and instrumental examination methods, correctly determined the clinical diagnosis according to the classification of diseases and substantiated it, fully conducted differential diagnostics, prescribed complete and correct treatment, correctly determined the prognosis of the disease and means of its prevention.

A grade of "4" is given if the student conducted a complete clinical examination of a sick child, but made inaccuracies in assessing the clinical condition, the results of laboratory and instrumental examination methods, correctly determined the clinical diagnosis and substantiated it, did not carry out a full differential diagnosis, prescribed the correct treatment, but not in full or with minor errors.

A grade of "3" is given if the student made individual errors in assessing the patient's clinical condition, the results of clinical, laboratory and instrumental examinations, establishing and justifying the diagnosis, prescribing treatment, or determining the prognosis of the disease.

A grade of "2" is given if the student made significant errors in the analysis of the clinical condition, the results of the clinical, laboratory and instrumental examination of a sick child, did not establish the correct diagnosis, and did not prescribe the correct treatment.

The work is considered completed if the student receives a positive grade for writing and defending the medical history.

"5" - 30 points,

"4" - 24 points,

"3" - 18 points,

"2" - 0 points.

TEACHING METHODS

Traditional and modern methods are used: lectures, case methods, problem-based learning, simulations, interactives, platform LIKAR_NMU etc.

When studying the discipline "Pediatrics with pediatric infectious diseases (Pediatrics)" Teaching methods recommended for higher education are used, namely:

–by sources of knowledge: verbal (explanation, lecture, conversation, discussion); visual (demonstration); practical (practical work, mastering practical skills);

–according to the logic of the educational process: analytical (determination of the general condition of the patient and the main signs of the disease), synthetic (clarification of the relationship between the main signs of diseases, determination of optimal measures for diagnosis, treatment and prevention), their combination - analytical-synthetic, as well as inductive method, and deductive method;

–by the level of independent mental activity: problem-based, partially search-based, research-based.

Combining and generalizing the above teaching methods, when studying the discipline, it is advisable to implement the following methods of organizing training sessions:

- clinical case method,
- problem-oriented method,
- method of individual educational, research and practical tasks,
- competitive group method,
- training technology method,
- "business game" method,
- brainstorming method,
- a method of holding conferences using interactive, interdisciplinary and information and computer technologies.

The types of student learning activities, according to the curriculum, are lectures, practical classes, independent work of students, and completion of individual tasks.

Thematic plans for lectures, practical classes, IWS, and individual tasks ensure the implementation of all topics included in the program in the educational process.

Lectures. Preference is given to problem-based, review and conceptual-analytical lectures. During the lecture, students' knowledge is formed, a motivational component and a general-oriented stage of mastering scientific knowledge are provided. Lectures play a role in the quality management of students' independent work.

Practical classes with the organization methodology are clinical, aimed at controlling the assimilation of theoretical material and the formation of practical skills and abilities, as well as the ability to analyze and apply the acquired knowledge to solve practical problems. They include:

- history taking;
- examination of a sick child;
- planning the examination of a sick child;
- interpretation of laboratory and instrumental research data;
- determination of a preliminary clinical diagnosis;
- determination of therapeutic tactics;
- prescribing therapeutic nutrition;
- providing emergency medical care;
- solving situational problems;
- practicing practical skills on dummies and at the bedside of a sick child;
- maintaining medical records.

Independent work of the student - is performed by the student independently outside of classroom sessions. Possible types of independent work of students: preparation for practical classes, filling out a workbook on the discipline, searching and studying additional literature, creating algorithms, structural and logical diagrams, annotations, reports for presentations at practical classes, on duty in the clinic outside of school hours. The organization of

independent work in the departments of the pediatric hospital is provided by the teachers of the department.

METHODS AND FORMS OF CONTROL, DISTRIBUTION OF POINTS RECEIVED BY STUDENTS, ASSESSMENT

Control methods

Theoretical knowledge:

- written and computer-based testing,
- individual survey, interview,
- written works structured by content.

Practical skills and abilities:

- control over the implementation of standardized practical skills provided for in the student's practical training plan in the discipline:
 - analysis of laboratory and instrumental studies;
 - performing medical procedures in pediatrics;
 - providing emergency care for children using dummies.

Forms of control

Current control is carried out at each practical lesson in accordance with the specific goals of the topic. In all practical lessons, objective control of theoretical preparation and mastery of practical skills (standardized by the method of performance) is applied, by average score and conversion into points on an 80-point scale.

The final control is carried out at the last lesson. Its purpose is to assess the student's work, the theoretical knowledge he has acquired, the development of clinical thinking, the acquisition of independent work skills, the ability to synthesize the acquired knowledge and apply it to solving practical problems.

Control of the implementation 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 lesson. Control of the acquisition of

practical skills on the corresponding topic of the lesson is carried out both during the current control and during the final semester control.

Regulations for assessing current student performance

Current control is carried out at each practical lesson in accordance with specific goals for each topic, provides for 100% surveying of students in the group, and evaluation of all components of the lesson - test control, control of the implementation of practical skills, solving situational tasks. Written performance of tasks in the process of preparing for the practical lesson is also taken into account.

For each stage of the lesson, the student receives a grade of "5-4-3-2", from which the teacher forms the arithmetic average grade for the lesson, which is converted into points, according to the scale. If the arithmetic average grade is "2", then this corresponds to quantity points "0".

Criteria for assessing knowledge of each component of the lesson.

1). The student's readiness for the lesson (initial stage) is checked based on the answers to **10 test questions** using the LIKAR_NMU platform.

For correct answers to 9-10 tests, the student receives the traditional grade of "5"; for 7-8 correct answers - a grade of "4", for 5-6 correct answers - a grade of "3", for less than 5 correct answers - a grade of "2".

2). The student's oral interview is evaluated as follows:

–A grade of "5" is given when the student gives comprehensive, accurate and clear answers without any leading questions; presents the material without errors and inaccuracies;

–A grade of "4" is given if the student knows the content of the lesson and understands it well, presents the answers to the questions correctly, consistently and systematically, but they are not exhaustive, although the student answers additional questions without errors;

-A grade of "3" is given to a student based on his knowledge of the main content of the lesson and a satisfactory level of understanding, he gives answers using leading questions, but answers directly posed questions correctly.

-A grade of "2" is given in cases where the student's knowledge does not meet the requirements for a grade of "3 points";

3) Formation of professional competencies.

-A grade of "5" is given when the student demonstrates the ability to analyze and apply the results obtained during the examination of the patient to solve practical problems, namely: collecting anamnesis, examining the child, planning the examination, interpreting laboratory and instrumental research data; correctly determines the clinical diagnosis in the typical course of the disease; prescribes the correct treatment in full; demonstrates excellent knowledge in providing emergency care.

-A grade of "4" is given if the student demonstrates the ability, with some inaccuracies, to analyze and apply the results obtained during the examination of the patient to solve practical problems; correctly determines the clinical diagnosis in the typical course of the disease; prescribes generally correct treatment, but may make some minor errors that are corrected independently; demonstrates good knowledge of emergency care.

-A grade of "3" is given to a student when he analyzes and applies the obtained results to solve practical problems with individual errors; determines a clinical diagnosis in a typical course of the disease; prescribes generally correct, but not complete treatment and/or with minor errors; demonstrates satisfactory knowledge of emergency care;

-A grade of "2" is given in cases where the student is unable to make decisions and act in typical clinical situations, is unable to determine a clinical diagnosis, or prescribe the correct treatment.

4) To control the student's mastery of the topic, he is asked to answer the question situational problem.

-A grade of "5" is given when the student correctly and completely solves a complex situational problem and gives comprehensive answers to all the questions asked.

-A grade of "4" is given if the student correctly solves a complex situational problem, but may make individual minor errors that he corrects independently.

-A grade of "3" is given to a student who solves a situational problem with individual errors, experiencing difficulties in simple cases; is unable to independently systematically present the answer.

-A grade of "2" is given if the student has obvious difficulties in solving situational tasks and gives incorrect answers to questions.

Assessment of students' independent work in preparation for classroom practical classes is carried out during the current control of the topic at the corresponding classroom class.

Maximum number points that can recruit a student for the current educational activity is 80 points.

The student has attend at least 10 practical classes (> 75%) and receive positive grades (> 0 points) during the current control. Educational Classes that were missed by the student for any reason, including illness, are mastered by him independently in extracurricular time (by writing a summary of the educational topic, medical history, distance learning, consultation, demonstration of practical skills, etc.).

Summary of missed training session the teacher returns it to the student. The department teacher keeps a Register of credited notes for missed classes in the form (see Appendix No. 4 to Order No. 782 of September 30, 2019), which is an appendix to the academic journal and shows the dynamics of students' mastery of missed academic topics. Such a Register is subject to weekly control by the head of the department.

The department does not establish a separate schedule indicating the hours for accepting notes of missed classes.

A student who misses more than 25% of classroom classes is considered to have failed the curriculum for the discipline and must therefore re-study the discipline .

Students do not make up for missed lectures, but missed lectures are counted towards the total number of missed classroom lessons in the academic discipline.

The final semester control is carried out upon completion of the study of the topics of practical classes. The student gives answers to 3 complex situational tasks, which involve testing the acquired competencies from 3 content modules. The final semester control is evaluated on a 120-point scale: 30 points for the answer to each complex situational task and 30 points for the academic medical history.

The sum of points for the discipline is set by the teacher of the academic group based on the results of current and final control with the corresponding conversion of the sum of points into traditional grades and ECTS credits.

**Distribution of points,
which are assigned to students when assessing the discipline**

No	Topic name	Number of points corresponding to the traditional assessment			
		"5"	"4"	"3"	"2"

1.	Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby.	5	4	3	0
2.	Premature babies. Babies who are small for gestational age.	5	4	3	0
3.	Neonatal asphyxia. Birth trauma.	5	4	3	0
4.	Neonatal respiratory distress syndrome (RDS). Neonatal pneumonia.	5	4	3	0
5.	Hemolytic disease of the newborn (HDN). Hemorrhagic syndrome in newborns.	5	4	3	0
6.	Intrauterine infections of newborns (TORCH infections).	5	4	3	0
7.	Bacterial infections of newborns.	5	4	3	0
8.	Anemias in children (deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis).	5	4	3	0
9.	Leukemia and lymphoma in children.	5	4	3	0
10.	Hemorrhagic diseases in children.	5	4	3	0
11.	Diabetes mellitus in children.	5	4	3	0
12.	Thyroid disease in children.	5	4	3	0
13.	Diseases of the hypothalamic-pituitary system and gonads in children.	5	4	3	0

Current control of the average score on an 80-point scale

The sum of points for the current control from the module "Pediatrics" of the discipline "Pediatrics with pediatric infectious diseases" is calculated as the arithmetic average of the sum of points for each class attended (absence from class - 0 points), divided by the number of topics in the module (13), and multiplied by 16*.

14.	Final control on a 120-point scale				
Complex situational problem 1		30	24	18	0
Complex situational problem 2		30	24	18	0
Complex situational problem 3		30	24	18	0

Medical history	30	24	18	0
Total points for the discipline	Maximum – 200			

* The coefficient 16 is the result of converting the average number of points into a proportion. For example: Maximum average score in points 5 – 80 points; average score 3.5 – X points. $X = 3.5 \times 80 : 5 = 3.5 \times 16 = 56$.

Conversion of the number of points from the discipline into grades on the ECTS and four-point (traditional) scales.

Points from the discipline are converted into both the ECTS scale and the four-point scale.

Ranking on the ECTS scale with assignment of m grades "A", "B", "C", "D", "E" are carried out so:

National scale assessment	Score	ECTS scale assessment	Explanation
Perfectly	170-200	A	Excellent (excellent performance with only a few errors)
Good	155-169	B	Very good (above average with a few errors)
	140-154	C	Good (generally correct execution with a certain number of significant errors)
Satisfactorily	125-139	D	Satisfactory (with a significant number of shortcomings)
	111-124	E	Sufficient (performance meets minimum criteria)
Unsatisfactorily	60-110	F	Unsatisfactory (with the possibility of reassembly)
	1-59	FX	Unsatisfactory (with mandatory re-study of the discipline)

Also, the department converts points from the discipline into a traditional four-point scale using absolute criteria as follows:

Discipline points	Rating on a four-point scale
From 170 to 200 points	5

From 140 to 169 points	4
From 139 to 111 points	3
110 points and below	2

Procedure for liquidating academic debt

If a student receives an unsatisfactory grade in a discipline within the range of 60-110 points (FX), he/she has the right to retake it 2 times: once - by the departmental commission with the participation of the head of the department, and the last time - by the commission with the participation of the head of the department and the dean.

Retaking of subjects with unsatisfactory grades is carried out according to the schedule drawn up by the department and agreed with the dean (the interval between attempts or subjects is at least 3 days). Subjects studied in the relevant course must be completed before the beginning of the new academic year. The presence of academic debt before the beginning of the new academic year is grounds for expelling a student from the university for failure to fulfill the requirements of the curriculum (or for issuing an academic leave and retaking the course due to health reasons).

If a student receives an unsatisfactory grade in a discipline within the range of 1-59 points (F), he/she is required to re-study it outside of class time on a paid basis. If a student receives an unsatisfactory grade again as a result of re-studying it, taking into account two retakes of the discipline or unsatisfactory grades in 3 disciplines, as well as missed classroom classes without good reason, the sum of which is 120 hours or more, leads to his/her expulsion from the university for failure to complete the curriculum.

Tools for diagnosing learning success

The following tools are used to diagnose learning success:

1. Test tasks of format A
2. Structured tasks for written work
3. Practical tasks to test mastery of practical skills
4. Situational tasks.

The development of test-control questions, the formation of structured tasks for written papers, situational tasks for interviews, and practical tasks used to diagnose learning success are based on a list of questions and practical skills that a student must master when studying the discipline "Pediatrics with Pediatric Infectious Diseases (Pediatrics)".

Sets of practical tasks are formed from a list of practical skills that a student must master while studying the discipline, and represent practical work standardized in terms of performance methodology.

List of questions for the final control:

1. Indicators of the quality of medical care for newborns: perinatal mortality, neonatal morbidity and mortality.
2. Protocol for medical care for a healthy newborn baby: sequence of actions when providing medical care for a healthy newborn baby in the delivery room.
3. Criteria for determining prematurity. Assessment of morphological and neuro -functional maturity of prematurely born children (according to the Ballard scale).
4. Pathological conditions characteristic of prematurely born children. Principles of providing medical and preventive care.
5. Features of enteral and parenteral nutrition of premature infants.
6. Emergency care for emergencies in premature babies: hypothermia, hypoglycemia, apnea.
7. Intrauterine growth retardation: causes, clinical variants, features of early neonatal adaptation.
8. Birth asphyxia: definition, causes, classification, diagnostic criteria. Initial, resuscitation and post-resuscitation care for a newborn baby.
9. Birth trauma: maternal and fetal factors, typical manifestations of various types of birth trauma (soft tissue damage, paresis, paralysis, bone fractures, intracranial hemorrhages). Modern methods of diagnosing intracranial hemorrhages. Principles of treatment of various types of birth trauma.

10. Neonatal respiratory distress syndrome: definition, risk factors, pathogenesis, clinical signs, diagnostic methods, differential diagnosis. Principles of treatment: stabilization of the condition at birth, surfactant replacement therapy, respiratory support methods. Antenatal steroid prophylaxis.
11. Neonatal pneumonia: definition, etiology, pathogenesis, classification, features of the course of pneumonia in premature infants. Principles of antibiotic therapy pneumonia of newborns.
12. Hemolytic disease of the newborn: etiology, pathogenesis, classification, clinical and laboratory criteria for different forms of the disease, differential diagnosis. Phototherapy: mechanism of action, rules of conduct, complications. Blood exchange transfusion operation: indications, technique of conduct, complications. Specific prevention of hemolytic disease of the newborn. Prognosis.
13. Causes of hemorrhagic syndrome in newborns. Hemorrhagic disease of the newborn: definition, pathogenesis, classification, clinical features, diagnostics, differential diagnostics, treatment, emergency care, prevention.
14. TORCH infections of newborns: etiology, pathogenesis, clinical manifestations, diagnostics, differential diagnostics, treatment, prevention, prognosis.
15. Purulent-inflammatory diseases of the skin and subcutaneous fat of newborns, diseases of the umbilical cord, umbilical wound and umbilical vessels: classification, etiology, pathogenesis, clinical manifestations, diagnostics, differential diagnostics, treatment, prevention, prognosis.
16. Neonatal sepsis: definition, classification, etiology, pathogenesis, clinical features, diagnostics, differential diagnostics, treatment, prevention, prognosis.
17. Anemias in children (deficiency, posthemorrhagic, hemolytic, due to impaired hematopoiesis): definition, etiology, pathogenesis, classification, clinical manifestations, diagnostics, differential diagnostics, treatment, prevention, prognosis.

18. Classification of hemostasis disorders. Causes and risk factors for hemorrhagic diseases in children (hemophilia, idiopathic thrombocytopenic purpura, hemorrhagic vasculitis).
19. Differential diagnosis of hemorrhagic diseases in children. Criteria for laboratory diagnosis of hemorrhagic diseases.
20. Principles of treatment and prevention of hemophilia, idiopathic thrombocytopenic purpura, hemorrhagic vasculitis. Emergency care for bleeding in children.
21. Acute leukemias in children: clinical options course , diagnostics, differential diagnostics. Principles of leukemia treatment , complications of cytostatic therapy. Prognosis. Lymphomas in children: clinical features, diagnostics, differential diagnostics, principles of treatment, prognosis.
22. Etiology, triggering factors, pathogenetic mechanisms of development, stages of development, clinical and laboratory manifestations of type 1 diabetes mellitus in children.
23. Principles of diabetes therapy. Diet therapy, system of bread units in the diet of patients with diabetes. Insulin therapy for type 1 diabetes: groups of insulin preparations, methods of its use, daily insulin requirement in children at different periods of the disease.
24. Diabetic ketoacidosis and ketoacidotic coma in children: causes, clinical and laboratory manifestations, principles of therapy. Hypoglycemia and hypoglycemic coma in children: causes, clinical manifestations, diagnostics, emergency care. Differential diagnosis of hypoglycemic and ketoacidotic coma in children and adolescents.
25. Causes of hypothyroidism in children and etiology of congenital hypothyroidism. Diagnosis of congenital hypothyroidism: symptoms and screening testing. Treatment and prognosis of congenital hypothyroidism. Acquired hypothyroidism, causes, clinical features, diagnostics, treatment.

26. Endemic goiter, diagnosis, treatment, prognosis. Main clinical manifestations and diagnosis of Graves' disease. Treatment of Graves' disease in children.
27. Thyrotoxic crisis, causes, clinical manifestations, emergency care.
28. Diagnosis and treatment of thyroid cancer in children.
29. Etiology, pathogenesis, clinical picture, diagnostic methods, differential diagnosis, treatment and prevention of pituitary dwarfism, diabetes insipidus, hypogonadism, cryptorchidism, precocious puberty, delayed puberty, Turner syndrome, Klinefelter syndrome, ovotesticular disorder of sex formation, congenital adrenal hyperplasia.
30. Obesity in children: etiology, pathogenesis, types, genetic syndromes with obesity, diagnostics, treatment.

List of practical skills, the acquisition of which is monitored during current control:

1. Perform indirect heart massage on a newborn baby.
2. Perform artificial ventilation of the lungs of a newborn baby using a mask and an Ambu bag with air.
3. To restore airway patency in a newborn baby.
4. Insert a nasogastric tube and an orogastric tube into a newborn baby.
5. Perform the technique of skin-to-skin contact with the newborn and early breastfeeding.
6. Initial and resuscitation care for a newborn baby.
7. Conduct an examination and evaluation of the external genitalia of boys and girls.
8. Assess the state of sexual development of children.
9. Palpate the thyroid gland and evaluate its results.
10. Clinical interpretation of laboratory parameters in the most common hematological diseases.
11. Clinical interpretation of indicators in the most common endocrine diseases.

12. Clinical interpretation of laboratory parameters in the most common diseases of newborns.

COURSE POLICY

Course Policy: Mandatory adherence to academic integrity by students, namely:

- independent performance of all types of work, tasks, and forms of control provided for by the work program of this academic discipline;
- references to sources of information in case of using ideas, developments, statements, information;
- compliance with the norms of legislation on copyright and related rights;
- providing reliable information about the results of one's own educational (scientific) activities, research methods used and sources of information.

METHODOLOGICAL SUPPORT

All types of educational activities have methodological support: lectures, practical classes, and independent work of students.

Methodological support of the lecture course:

1. Lecture abstracts.
2. Methodological developments of lectures.
3. Lecture presentations.
4. Online lectures on the LIKAR_NMU distance learning platform

Methodological support for practical classes:

1. Methodological developments of practical classes for students.
2. Variants of test questions and tasks to check the initial level of knowledge on each topic.
3. Variants of situational tasks to check the mastery of topics.

- treatment algorithms and emergency care (according to evidence-based medicine standards)
- algorithms for performing practical skills, medical manipulations, videos
- results of laboratory and instrumental research methods
- dummies, phantoms, etc.
- simulators, electronic directories, computers with appropriate information support

4. Task options for the final semester test.

Methodological support for students' independent work:

1. Methodological recommendations for preparing for practical classes.
2. Workbook for pre-audit preparation.
3. Methodical instructions for performing practical skills.
4. Task options for independent work by students.

RECOMMENDED READING

1. Pediatrics (neonatology, hematology, endocrinology): Teaching and methodological manual / Edited by O.P. Volosovets. – Kyiv: MEDPRINT, 2023. – 410 p.
2. Neonatology: textbook: in 3 volumes / [T. K. Znamenska, Yu. G. Antipkin, M. L. Aryaev and others]; edited by T. K. Znamenska. – Lviv: Publisher Marchenko T. V., 2020. – Vol. 1. – 408 p., Vol. 2- 456 p., Vol. 3- 380 p.
3. Nelson's Fundamentals of Pediatrics: In 2 Volumes. Volume 1 / Karen J. Markdante, Robert M. Kligman; translation of the 8th English edition. Scientific editors of the translation V.S. Berezenko, T.V. Pochynok. Kyiv: VSV "Medicine", (2020). T1-378p., T2- 426 p.

4. Clinical pediatrics: textbook [V.M. Dudnik, I.I. Andrikevich , R.I. Mantak , etc.]; edited by Prof. V.M. Dudnik. – Vinnytsia: Nova Knyga, 2021. - 648 p.
5. Academic lectures on pediatrics/ed. Y.G. Antipkin.-Kyiv: RA-GARMONIYA LLC, 2020 –624 p.
6. Nelson textbook 2 1st Edition by Robert M. Kliegman, MD, Joseph St. Geme , Nathan J. Blum, Samair S. Shan, Robert C. Tasker, Karen M. Wilson, Richard E. Behrman Publisher: Elsevier, (2020). 848 ISBN 978032351145

Recommended electronic resources:

1. Unified clinical protocol for secondary (specialized) and tertiary (highly specialized) medical care “Respiratory distress syndrome in premature infants”, approved by Order of the Ministry of Health of Ukraine dated 05.05.2021 No. 873 <https://zakon.rada.gov.ua/rada/show/v0873282-21#Text>
2. Order of the Ministry of Health No. 991 dated 09.06.2022 "Procedure for conducting expanded neonatal screening"
<https://zakononline.com.ua/documents/show/502471697043>
3. Unified clinical protocol for secondary (specialized) and tertiary (highly specialized) medical care "Parenteral nutrition of newborns", approved by Order of the Ministry of Health of Ukraine dated 04/18/2022 No. 650https://www.dec.gov.ua/wpcontent/uploads/2022/04/2022_650_ykpmd_pex_no_vonar.pdf
4. Unified clinical protocol for secondary (specialized) and tertiary (highly specialized) medical care "Enteral nutrition of premature infants" (2021)
https://www.dec.gov.ua/wpcontent/uploads/2021/05/2021_870_ykpmd_ehnn_dit.pdf
5. Unified clinical protocol of specialized medical care "Jaundice of newborns", approved by Order of the Ministry of Health of Ukraine dated 04/27/2023 No. 783
https://www.dec.gov.ua/wp-content/uploads/2023/04/ukpmd_783_27042023_zhovt.pdf

6. Unified clinical protocol "Initial, resuscitation and post-resuscitation care for newborns in Ukraine", approved by the Order of the Ministry of Health of Ukraine dated March 26, 2025 No. 536 <https://www.dec.gov.ua/mtd/pochatkova-reanimacijna-ta-pislyareanimacijna-dopomoga-novonarodzhenyim/>
7. JM Powers, MSC Sandoval. Approach this the child with anemia. UpToDate Online resource . 2022. <https://www.uptodate.com/contents/approach-to-the-child-with-anemia>.
8. James B. Bussel , MD Immune thrombocytopenia (ITP) in children: Clinical features and diagnosis. Immune thrombocytopenia (ITP) in children: Initial management Jul 2022 <https://www.uptodate.com/contents>
9. Srivastava A., Santagostino E., Dougall A., et al. WFH Guidelines for the Management of Hemophilia , 3rd edition . Hemophilia. 2020;26(Suppl6):1-158. <https://doi.org/10.1111/hae.14046>
10. Medical care standards "Diabetes mellitus in children", 2023. – 188 p. https://moz.gov.ua/uploads/8/44300-dn_413_28022023_dod.pdf
11. Unified clinical protocol for primary and secondary (specialized) medical care for iron deficiency anemia https://www.dec.gov.ua/wp-content/uploads/2019/11/2015_709_ykpmd_zda.pdf

Matrix of correspondence of program competencies to educational program components

Software competence		Educational components																																			
		O K 2 5	O K 2 6	O K 2 7	O K 2 8	O K 2 9	O K 3 0	O K 3 1	O K 3 2	O K 3 3	O K 3 4	O K 3 5	O K 3 6	O K 3 7	O K 3 8	O K 3 9	O K 4 0	O K 4 1	O K 4 2	O K 4 3	O K 4 4	O K 4 5	O K 4 6	O K 4 7	O K 4 8	O K 4 9	O K 5 0	O K 5 1	O K 5 2	O K 5 3	O K 5 4	O K 5 5	O K 5 6	O K 5 7	O K 5 8	O K 5 9	
GENERAL COMPETENCES	GC 1	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 4	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 5	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 6	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 8	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 9																																				
	GC 10	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	GC 11	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	GC 12	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	GC 13	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	GC 14	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	GC 15	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
PR	PC	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+				

** codes of educational components and competencies are given in the section "Educational program profile"*