Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA named after Patrice Lumumba
RUDN University

Institute of Medicine

educational division (faculty/institute/academy) as higher education programme developer

COURSE SYLLABUS

Pediatrics

course title

Recommended by the Didactic Council for the Education Field of:

31.05.01 General Medicine

field of studies / speciality code and title

The course instruction is implemented within the professional education programme of higher education:

General Medicine

higher education programme profile/specialisation title

2023-2024

1. COURSE GOAL(s)

The goal of the course "Pediatrics" is to equip with theoretical and practical knowledge, skills and competence in the area of diagnostics, emergency care, management, clinical examination and prevention of the most common diseases of childhood and adolescence, that are capable of, and ready for independent professional activity.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "Pediatrics" is aimed at the development of the following competences /competences in part General Professional Competences (GPC) – 2, General Professional Competences (GPC) – 3.

Table 2.1. List of competences that students acquire through the course study

Competence code	**Competence descriptor**	**Competence formation indicators** (within this course)
GPC-2	Able to examine a patient in order to establish a diagnosis	GPC-2.1. Has the skills to take patient's complaints, medical and life history, as well as conduct a complete physical examination of the patient (inspection, palpation, percussion, auscultation).
		GPC-2.2. Able to make a preliminary diagnosis and create a plan of laboratory and instrumental investigations of a patient.
		GPC-2.3. Able to refer patients for laboratory investigations where medically indicated, in accordance with the current procedures for the provision of medical care, and clinical guidelines (treatment protocols) on the provision of medical care, taking into account standards of medical care.
		GPC-2.4. Able to refer patients for instrumental investigations where medically indicated, in accordance with the current procedures for the provision of medical care, and clinical guidelines (treatment protocols) on the provision of medical care, taking into account standards of medical care.
		GPC-2.5. Able to refer patients for consultations with specialist doctors where medically indicated, in accordance with the current procedures for the provision of medical care, and clinical guidelines

		(treatment protocols) on the provision of medical care, taking into account standards of medical care.
		GPC-2.6. Able to refer patients for specialized healthcare services in an inpatient setting or in a day hospital where medically indicated, in accordance with the current procedures for the provision of medical care, and clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care.
		GPC-2.7. Able to carry out differential diagnosis with other diseases/conditions, including emergencies, as well as to make a diagnosis, taking into account the current international statistical classification of diseases and health-related problems (ICD).
GPC-3	Able to prescribe treatment and monitor its efficacy and safety	GPC-3.1. Able to develop a treatment plan for a disease or condition taking into account the diagnosis, age and clinical picture; in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.
		GPC-3.2. Able to prescribe medications, medical devices and therapeutic nutrition taking into account the diagnosis, age and clinical picture of the disease, in accordance with the current procedures for the provision of medical care, as well as clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care.
		GPC-3.3. Able to prescribe non-pharmacological treatment taking into account the diagnosis, age and clinical picture of the disease, in accordance with the current procedures for the provision of medical care, and clinical guidelines (treatment protocols) on the provision of medical care, taking into account standards of medical care.

		GPC-3.4. Able to assess the efficacy and safety of medications, medical devices, therapeutic nutrition and other treatment methods.
GPC-5	Able to carry out preventive measures, measures to promote a healthy lifestyle, as well as, sanitary and hygiene education among the population, and also, monitor their effectiveness	GPC-5.1. Able to organize and conduct medical examinations, taking into account age, health status, and profession, in accordance with applicable legislative acts and other documents.
		GPC-5.4. Able to carry out follow-up care of patients with diagnosed chronic non-communicable diseases.
		GPC-5.5. Able to prescribe preventive measures to patients, taking into account risk factors in accordance with the current procedures for the provision of medical care, and clinical guidelines (treatment protocols) on the provision of medical care, taking into account standards of medical care.
		GPC-5.6. Able to monitor observance of preventive measures.
		GPC-5.7. Able to identify medical indications to introduce restrictive measures (quarantine) and indications for referral to a specialist doctor in the event of infectious (parasitic) diseases.
		GPC-5.9. Able to carry out anti-epidemic measures in the event of the occurrence of a focus of infection, including quarantine measures when highly (quarantine) infectious diseases are detected.

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the core/variable/elective* component of (B1) block of the higher educational programme curriculum.

* - Underline whatever applicable.

Within the higher education programme students also master other (modules) and / or internships that contribute to the achievement of the expected learning outcomes as results of the course study.

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results

Competence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
GPC-2	Able to examine a patient in order to establish a diagnosis	Biology, normal physiology, microbiology, virology, developmental physiology and anatomy, medical enzymology, introduction to nutrition, topographic anatomy, operative surgery, immunology, pathophysiology, clinical pathophysiology, dermatovenerology, neurology, medical genetics, neurosurgery, occupational diseases, general and faculty surgery, obstetrics and gynecology	Polyclinic therapy, hospital and pediatric surgery, urology, oncology, radiation therapy, pediatrics
GPC-3	Able to prescribe treatment and monitor its efficacy and safety	Pathological anatomy, topographic anatomy, operative surgery, dermatovenerology, neurology, medical	Disaster medicine, hospital therapy, oncology, radiation therapy, pediatrics
		genetics, neurosurgery, otorhinolaryngology, ophthalmology, forensic medicine, propedeutics of internal diseases, faculty therapy, phthisiology, occupational diseases, general and faculty surgery, dentistry, urology, obstetrics and gynecology.	

GPC-5	Able to carry out preventive measures, measures to promote a healthy lifestyle, as well as, sanitary and hygiene education among the population, and also, monitor their effectiveness	Dermatovenereology, neurology, medical genetics, neurosurgery, ophthalmology, forensic medicine, propedeutics of internal diseases, faculty therapy, occupational diseases, general and faculty surgery, dentistry, obstetrics and gynecology	Disaster medicine, hospital therapy, endocrinology, anesthesiology, resuscitation, intensive care, hospital and pediatric surgery, topical issues of neonatology

* To be filled in according to the competence matrix of the higher education programme.

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course "Pediatrics" is 10 credits (360 academic hours).

*Table 4.1. Types of academic activities during the periods of higher education programme mastering (**full-time training**)**

Type of academic activities		**Total academic hours**	**Semesters/training modules**			
			9	**10**	**11**	
Contact academic hours		**225**	72	85	72	
including:						
Lectures (LC)		-	-	-	-	
Lab work (LW)						
Seminars (workshops/tutorials) (S)		225	72	85	72	
Self-studies		135	36	59	72	
Evaluation and assessment (exam/passing/failing grade)		18	18	18	18	
Type of academic activities		**Total academic hours**	**Semesters/training modules**			
			9	**10**	**11**	
Course workload	academic hours_	360	108	144	108	
	credits	10	3	4	3	

5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

Modules and Topics	**Content of the topics**	**Type of academic activities**

Module 1 Growth and development of children	**1.1.** Periods of childhood. Physical development. Skin and subcutaneous fat: development, anatomical and physiological features, methods of examination and semiotics of lesions.	**S**
	1.2. Development, anatomical and physiological features, methods of examination and semiotics of lesions of the nervous and endocrine systems. Evaluation of neuropsychic development	**S**
	1.3. Nutrition and nutritional disorders in children.	**S**
	1.4. Feeding.	**S**
Module 2 Propedeutics of childhood diseases	**2.1.** Musculoskeletal system: development, anatomic and physiological features, methods of examination, and semiotics of disorders. Rickets, rickets-like diseases.	**S**
	2.2 Development, anatomical and physiological features, examination methods and semiotics of disorders of the GIT and urinary system.	**S**
	2.3. Development, anatomical and physiological features, examination methods and semiotics of disorders of the blood, immune system and lymphatic system. Anemia..	**S**
	2.4. Development, anatomical and physiological features, examination methods and semiotics of disorders of the respiratory system. Community-acquired pneumonia. Acute bronchiolitis	**S**
	2.5. Development, anatomical and physiological features, examination methods and semiotics of disorders of the cardiovascular system. Heart failure.	**S**
	2.6. Congenital heart disease	**S**
Module 3 Somatic childhooddiseases	**2.7.** Myocardial diseases. Cardiomyopathies. Infectious endocarditis.	**S**
	2.8. Allergic diseases	**S**
	3.1. The child with stridor.	**S**
	3.2. The child with chronic cough	**S**
	3.3. Acute rheumatic fever. Diseases of the joints.	**S**
	3.4. Diffuse connective tissue diseases	**S**
	3.5. Systemic vasculitis	**S**
	3.6. Diseases of the urinary system	**S**
	3.7. Gastrointestinal tract diseases	**S**

	3.8. Hemorrhagic diseases. Hemorrhagic disease of the newborn.	**S**
	3.9. Diabetes mellitus	**S**
	3.10. Endocrine diseases	**S**
	3.11. Antibacterial therapy	**S**
Module 4 Pediatric infectious diseases	**4.1.** Exanthema: measles, rubella, parvovirus infection.	**S**
	4.2.. Enterovirus infections. Poliomyelitis	**S**
	4.3. Mumps, diphtheria	**S**
	4.4. Meningeal syndrome. Bacterial and viral meningitis. Meningococcal infection..	**S**
	4.5. Streptococcal infection. Scarlet fever. Yersiniosis. Pseudotuberculosis. Multisystem inflammatory syndrome in children.	**S**
	4.6. Herpes infection.	**S**
	4.7. Acute intestinal infections. Hemolytic uremic syndrome	**S**
	4.8. Vaccination of children	**S**

* - to be filled in only for **full** -time training: *LC - lectures; LW - lab work; S - seminars.*

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

Type of academic activities	**Classroom equipment**	**Specialised educational / laboratory equipment, software, and materials for course study** (if necessary)
Seminars	A classroom for conducting seminar-type classes, group and individual consultations, continuous assessments and mid-term assessment, equipped with a set of specialized furniture and multimedia presentation equipment.	Set of specialized furniture; technical equipment: NEC VT59 multimedia projector, ASUS X50M and Dell Latitude D631 laptops, there is Internet access. Software: Microsoft products (OS, office application package, including MS Office / Office 365, Teams, Skype).
Self-studies	Classroom for self-studies of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to EIES.	

* The premises for students' self-studies are subject to **MANDATORY** mention

7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

1. Practicum in pediatrics: A manual for students of the 5th year / Edited by D.Yu. Ovsyannikov, M.G. Kantemirova. - M.: RUDN, 2013. - 201 p. - ISBN 978-5-209-05482-5:89.77.

Additional readings:

1. Pediatric Integrative Medicine: An Emerging Field of Pediatrics, 2015. 1 c. ISBN 9783038420620 URL: http://books.mdpi.com/pdfview/book/121
2. Neonatal and Pediatric Cerebro-Cardiopulmonary Resuscitation / Michael Shoykhet [et al.]. 2018. 1 c. ISBN 9782889456598 URL: https://www.frontiersin.org/research-topics/4942/neonatal-and-pediatric-cerebro-cardio-pulmonary-resuscitation-ccpr
3. Wynn J.L., Bliss J.M.. The Neonatal Immune System: A Unique Host-Microbial Interface, 2018. 1 c. ISBN 9782889454037 URL: https://www.frontiersin.org/research-topics/5017/the-neonatal-immune-system-a-unique-host-microbial-interface
4. Lissauer Tom. Illustrated Textbook of Paediatrics / T. Lissauer, W. Carrol. - Fifth Edition - China : Elsevier, 2017. - 583 p.: il. - ISBN 978-0-7234-3871-7: 6113.30.
5. Soumen Khatua (Ed.), Natasha Pillay Smiley (Ed.). Update in Pediatric Neuro-Oncology, 2019. 1 c. ISBN 9783038975397 URL: https://www.mdpi.com/books/pdfview/book/1112.
6. Giovanni Biglino, Adelaide de Vecchi. Ventricular Mechanics in Congenital Heart Disease, 2017. 1 c. ISBN 9782889452644 URL: http://journal.frontiersin.org/researchtopic/ 4933/ventricular-mechanics-in-congenital-heart-disease
7. Tammy M. Brady, Ibrahim F. Shatat. Pediatric Hypertension: Update, 2018. 1 c. ISBN 9782889456543 URL: https://www.frontiersin.org/research-topics/5269/pediatric-hypertension-update
8. Stefan J. Friedrichsdorf (Ed.). Pediatric Palliative Care, 2019. 1 c. ISBN 9783038973508 URL: https://www.mdpi.com/books/pdfview/book/1130
9. Carlo Caffarelli, Luis Garcia-Marcos, Kostas N. Priftis. The Parallel March of Asthma and Allergy in Childhood: A Multi-Perspective Approach, 2018. 1 c. ISBN 9782889455294 URL: https://www.frontiersin.org/research-topics/4997/the-parallel-march-of-asthma-and-allergy-in-childhood-a-multi-perspective-approach
10. Frederick Jeffrey Kaskel, Agnieszka Swiatecka-Urban, Robert P. Woroniecki. Nephrotic Syndrome in Pediatric Patients, 2017. 1 c. ISBN 9782889452989 URL: https://www.frontiersin.org/research-topics/3714/nephrotic-syndrome-in-pediatric-patients

Internet sources:

1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:

- RUDN Electronic Library System (RUDN ELS) http://lib.rudn.ru/MegaPro/Web
- EL "University Library Online" http://www.biblioclub.ru
- EL "Yurayt" http://www.biblio-online.ru
- EL "Student Consultant" www.studentlibrary.ru
- EL "Lan" http://e.lanbook.com/
- EL "Trinity Bridge"
- …….

2.Databases and search engines:

- electronic foundation of legal and normative-technical documentation

http://docs.cntd.ru/

- Yandex search engine https:// www .yandex.ru/
- Google search engine https://www.google.ru/
- Scopus abstract database http://www.elsevierscience.ru/products/scopus/

*Training toolkit for self- studies to master the course *:*

1. The set of lectures on the course "Pediatrics"

* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

8. ASSESSMENT TOOLKIT AND GRADING SYSTEM* FOR EVALUATION OF STUDENTS' COMPETENCES LEVEL UPON COURSE COMPLETION

The assessment toolkit and the grading system* to evaluate the competences formation level (GPC-2. GPC-3) upon the course study completion are specified in the Appendix to the course syllabus.

* The assessment toolkit and the grading system are formed on the basis of the requirements of the relevant local normative act of RUDN University (regulations / order).

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