Patrice Lumumba RUDN University

Institute of Medicine

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

COURSE SYLLABUS

Topical issues in Neonatology

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 "Topical issues in neonatology" is to theoretical and practical knowledge, skills and competence in the field of diagnostics, emergency care, management, clinical examination and prevention of the most common neonatal diseases, that are capable of, and ready for independent professional activity.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "Topical issues in neonatology" is aimed at the development of the following competences /competences in part: (GPC) - 2, (GPC) - 3.

Competence code	Competence	Indicators of Competence Formation (within the framework of this discipline)
GPC-2	Able to examine a patient in order to establish a diagnosis	GPC-2.2. Able to make a preliminary diagnosis and create a plan of laboratory and instrumental investigations of a patient.
		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).

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

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.

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course refers to the <u>core</u>/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

Compet ence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*	
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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, 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 genetics, neurosurgery, otorhinolaryngology, ophthalmology, forensic	Disaster medicine, hospital therapy, oncology, radiation therapy, pediatrics
Compet ence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
		medicine, propedeutics of internal diseases, faculty therapy, phthisiology, occupational diseases, general and faculty surgery, dentistry, urology, obstetrics and gynecology.	

* 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 <u>"Topical issues in neonatology"</u> is 2 credits (72 academic hours).

Type of academic activities		Total	Semesters/training modules
		academic hours	1
Contact academic hours		34	34
Including:			
Lectures (LC)			
Lab work (LW)			
Seminars (workshops/tutorials) (S)		34	34
Self-studies 5		38	38
<i>Evaluation</i> and assessment (<i>exam/passing/failing grade</i>)			-
Course workload	academic hours_	72	72
	credits	2	2

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

* To be filled in regarding the higher education programme training mode.

5. COURSE CONTENTS

Course module title	itle Course module contents (topics)	
Module 1 Introduction to neonatology	1.1. Basic concepts of neonatology. Perinatal history. Neonatal risk groups. Anatomical and physiological features and methods of medical examination of the newborn.	
	1.2. Adaptation of the newborn (borderline, transient states).	S
Course module title	Course module contents (topics)	Academic activities types
	1.3. Neonatal screening.	S
	1.4. The premature newborn.	S
Module 2 Perinatal pathology of	2.1. Perinatal asphyxia, hypoxic-ischemic encephalopathy and its consequences.	S
the nervous system and birth trauma	2.2 Birth trauma.	S
Module 3	3.1. Neonatal jaundice (hyperbilirubinemia).	S
Diseases associated with metabolic disorders	3.2. Hemorrhagic disease of the newborn.	S
Module 4 Neonatal pulmonology	4.1. Neonatal respiratory distress syndrome.	S
	4.2. Bronchopulmonary dysplasia (BPD).	S

Table 5.1. Course contents and academic activities types

	4.3. Congenital pneumonia.	S
Module 5 Perinatal infections.	5.1. Neonatal infections of the skin and subcutaneous fat, omphalitis, conjunctivitis.	S
	5.2. Neonatal sepsis.	S
	5.3. Congenital (intrauterine) infections.	S

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

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
Seminar	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	
Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
	computers with access to EIES.	

Table 6.1. Classroom equipment and technology support requirements

* 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/researchtopics/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-aunique-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

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) <u>http://lib.rudn.ru/MegaPro/Web</u>

- EL "University Library Online" <u>http://www.biblioclub.ru</u>
- EL "Yurayt" http://www.biblio-online.ru
- EL "Student Consultant" <u>www.studentlibrary.ru</u>
- EL "Lan" http://e.lanbook.com/
- EL "Trinity Bridge"

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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 <u>https://www.google.ru/</u>
- Scopus abstract database <u>http://www.elsevierscience.ru/products/scopus/</u>

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

1. The set of lectures on the course "Topical issues of neonatology"

2. The laboratory workshop (if any).on the course "Topical issues of neonatology"

3. The guidelines for writing a course paper / project (if any) on the course "Topical issues of neonatology".

* 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).

DEVELOPERS:

Assistant lecturer, Department		
of Pediatrics		
		M.I. Daniel-Abu
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