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#### onomous Educational Institution of Higher Education DSHIP UNIVERSITY OF RUSSIA NAMED AFTER PATRICE LUMUMBA RUDN University

#### **Institute of Medicine**

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

#### **COURSE SYLLABUS**

Pathologic Anatomy - Pathologic Anatomy of Head and Neck

course title

#### **Recommended by the Didactic Council for the Education Field of:**

31.05.03 Dentistry

field of studies / speciality code and title

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

Dentistry

higher education programme profile/specialisation title

#### 1. COURSE GOAL(s)

The goal of the course "**Pathologic Anatomy - Pathologic Anatomy of Head and Neck**" is to equip students with the knowledge about the structural foundations of diseases, to study the most typical, characteristic changes at the macro- and microscopic levels in order to comprehend the theoretical foundations of medicine, a more in-depth study of the clinic and the use of the acquired knowledge in the work of a doctor wide profile.

#### 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "Pathologic Anatomy-Pathologic Anatomy of Head and Neck" is aimed at the development of the following competences /competences in part: GPC-5.8; GPC-5.9.; GPC-9.3; PC-1.5.

Competence code	Competence descriptor	Competence formation indicators (within this course)
	Able to conduct an examination of the patient	GPC-5.8. Performs differential diagnostics with other diseases/conditions, including urgent ones.
GPC-5	in order to establish a diagnosis when solving professional problems	GPC-5.9. Establishes a diagnosis based on the current international statistical classification of diseases and health-related problems.
GPC-9	Able to assess morphofunctional, physiological states and pathological processes in the human body for solving professional tasks	GPC-9.3. Determines morphofunctional, physiological states and pathological processes of the human body.
PC-1	Capable of conducting a patient examination in order to establish a diagnosis.	PC-1.5. Establishes a preliminary / final diagnosis based on the patient's examination, laboratory and instrumental data.

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

# **3.COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE**

The course refers to the  $\underline{core/variable/elective^*}$  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

Compet ence	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
code	Able to conduct an examination of the patient in order to establish a diagnosis when solving professional problems	Internal diseases	Dermatovenereology; Neurology; Ophthalmology; Obstetrics; Pediatrics; Gnathology and functional diagnostics of the temporal mandibular joint; Dental prosthetics (simple prosthetics); Prosthetics in the complete absence of teeth; Dental prosthetics (complex prosthetics); Pediatric maxillofacial surgery; Maxillofacial prosthetics; Children's dentistry; Orthodontics and children's prosthetics; Emergency conditions in outpatient dental practice; Medical genetics in dentistry; Cariesology and diseases of hard tissues of teeth; Endodontics; Gerontostomatology and diseases of the oral mucosa; Periodontology. <b>Practice</b> Assistant dentist (therapist); Assistant dentist (children's); <b>State final certification</b> Preparation for and passing the state exam; State exam (computer testing); State exam (interdisciplinary interview)
GPC-9	Able to assess morphofunctional, physiological conditions and pathological processes in the human body for solving professional tasks	Biological chemistry - Biochemistry of the oral cavity; Human anatomy - The anatomy of the head and neck. Histology, Embryology, and Cytology - Oral Histology. Normal physiology, physiology of	Ophthalmology; Forensic medicine; Midwifery; Children's dentistry; Orthodontics and children's prosthetics; Medical rehabilitation; <b>Practice</b> Assistant to a dentist (children's); Assistant to a dentist (general

Compet ence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
		the maxillofacial region; Microbiology, virology - Oral microbiology. Pathophysiology - Pathophysiology of the head and neck. Medical Elementology; Bioelements in medicine; Topographic anatomy and operative surgery of the head and neck	practitioner), including research work <b>State final certification</b> Preparation for and passing the state exam; State exam (computer testing); State exam (interdisciplinary interview)
PC-1	Capable of conducting a patient examination in order to establish a diagnosis.	Immunology, clinical immunology; Radiation diagnostics; Life safety	Gnatology and functional diagnostics of the temporal mandibular joint; Prosthetics (simple prosthetics); Prosthetics in the complete absence of teeth; Dental prosthetics (complex prosthetics); Children's maxillofacial surgery; Maxillofacial prosthetics; Children's dentistry; Orthodontics and children's prosthetics; Medical genetics in dentistry; Medical genetics in dentistry; Medical rehabilitation; Oncostomatology and radiation therapy <b>Practice</b> Assistant to a dentist (therapist); Assistant to a dentist (orthopedic surgeon); Assistant to a dentist (children's); Assistant to a dentist (general practitioner), including research work <b>State final certification</b> Preparation for and passing the state exam; State exam (computer testing); State exam (interdisciplinary interview)

\* 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 is 4 credits (144 academic hours).

		TOTAL, academic	Semester (s)	
Type of academic work	Type of academic work		5	6
Contact academic hours		105	51	54
including:				
Lectures (LC)		-	-	-
Lab work (LW)		105	51	54
Seminars (workshops/tutorials) (S)		-	-	-
Self-studies		21	21	
Evaluation and assessment (exam/passing grade)	g/failing	18	9	9
Course workload	academic hours_	144	72	72
	credits	4	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 correspondence training mode.

# **5. COURSE CONTENTS**

Course module title	Course module contents (topics)	Academic activities types
Module 1 Pathanatomy of cells and	<b>Topic 1.1.</b> Reversible cell damage. Pathology of	LW
tissues.	protein metabolism. Pathology of fat and mineral metabolism.	
	<b>Topic 1.2.</b> Violation of pigment metabolism.	LW
	<b>Topic 1.3.</b> Irreversible cell damage. Necrosis. Apoptosis.	LW
<b>Module 2</b> Pathanatomy of typical	<b>Topic 2.1.</b> Circulatory disorders. Shock. Thrombosis. Embolism.	LW
pathological processes.	<b>Topic 2.2.</b> Atrophy. Hypertrophy. Regeneration. Types of tissue healing. Immune damage to organs.	LW
	<b>Topic 2.3.</b> Exudative inflammation. Productive inflammation.	LW
Module 3	<b>Topic 3.1.</b> Tumors from the epithelium.	LW
Pathanatomy of tumors.	<b>Topic 3.2.</b> Tumors of mesenchymal and mesodermal origin.	LW
Module 4	Topic 4.1. Hemoblastosis.	LW
Pathanatomy of blood and bone marrow cells.	Topic 4.2. Anemia.	LW
Module 5 Pathanatomy of diseases	<b>Topic 5.1.</b> Atherosclerosis. Coronary heart disease. Hypertension.	LW
of the cardiovascular system.	<b>Topic 5.2.</b> Rheumatic diseases. Heart defects.	LW
Module 6	Topic 6.1. Kidney diseases.	LW
Pathanatomy of diseases of internal organs.	<b>Topic 6.2.</b> Liver diseases. Diseases of the gastrointestinal tract.	LW
Module 7	<b>Topic 7.1.</b> Viral infections (influenza, measles,	LW

Table 5.1. Course contents and academic activities types

Course module title	Course module contents (topics)	Academic activities types
Pathanatomy of	HIV).	
infectious diseases.	<b>Topic 7.2.</b> Bacterial infections (diphtheria, scarlet fever, bronchitis, pneumonia).	LW
	<b>Topic 7.3.</b> Specific diseases (tuberculosis, sarcoidosis, syphilis, leprosy, scleroma) and mycoses.	LW
	<b>Topic 7.4.</b> Quarantine infections (plague, smallpox, cholera, anthrax).	LW
	Topic 7.5. Sepsis.	LW
Module 8 Pathanatomy of orofacial	<b>Topic 8.1.</b> Tumors and tumour-like formations of the scalp and neck.	LW
pathology.	<b>Topic 8.2.</b> Pathology of the oral mucosa and lips.	LW
	<b>Topic 8.3.</b> Non-tumor lesions of the salivary glands.	LW
	<b>Topic 8.4.</b> Tumors of the salivary glands.	LW
	<b>Topic 8.5.</b> Pathology of hard tooth tissues, pulp and periapical tooth tissues.	LW
	<b>Topic 8.6.</b> Periodontal diseases.	LW
	<b>Topic 8.7.</b> Diseases of the jawbones.	LW
	Topic 8.8. Odontogenic infection.	LW

\* - 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)
Lab work (208)	An auditorium for conducting laboratory work, individual consultations, routine monitoring and intermediate certification, equipped with a whiteboard, a set of specialized furniture and equipment (Dell Optiplex 3080 Micro Mini PC, LG 49UK6200 TV). Software: Microsoft products (OS, office suite, including Office 365).	Museum of macro-preparations for various types of human pathology; A set of micro- preparations for various types of pathology; Binocular microscopes for studying micro- preparations; Tables for various types of pathology.
Seminar (214)	An auditorium for conducting seminar- type classes, group and individual consultations, ongoing monitoring and intermediate certification, equipped with a graphite board, a set of specialized furniture and technical multimedia presentation tools (NEC NP210 projector, Asus P-M740 laptop). Software: Microsoft products (OS, office suite, including Office 365).	

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)
Seminar (216)	An auditorium for conducting seminar- type classes, group and individual consultations, ongoing monitoring and intermediate certification, equipped with a graphite board, a set of specialized furniture and technical multimedia presentation tools (NEC VT45 1000 ANSI multimedia projector).	
Seminar (218)	An auditorium for conducting seminar- type classes, group and individual consultations, ongoing monitoring and intermediate certification, equipped with a set of specialized furniture and technical multimedia presentation tools (NEC VT59 projector).	
Self-studies	Classroom for self-study of students (can be used for consultations), equipped with a set of specialized furniture and a graphite board.	

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

### 7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

- 1. Babichenko I. I., Ivina A. A., Vasiliev A.V., Tsymbalist N. S. Guide to laboratory classes in pathological anatomy in the specialty "Dentistry". Moscow: RUDN University, 2020. 293 p.
- Ivina A. A., Kudryavtseva L. V., Kudryavtsev G. Yu. Private forms of cancer : cancer of lungs, stomach, uterus, ovaries, breast [Electronic resource]: Educational and methodical manual for practical training in pathological anatomy. Moscow: RUDN Publishing House, 2019. - 40 p. <u>http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=478309&idb=0</u>
- Ivina A. A., Kudryavtseva L. V., Kudryavtsev G. Yu. Parasitic diseases: malaria, amoebiasis, schistosomiasis, leishmaniasis, trypanosomiasis, echinococcosis [Electronic resource]: Educational and methodical manual for practical training in pathological anatomy. Moscow: RUDN Publishing House, 2019. - 28 p. - ISBN 978-5-209-08941-4.

http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=478308&idb=0

4. Ivina A. A., Kudryavtseva L. V., Kudryavtsev G. Yu. Immunopathological processes [Electronic resource]: Educational and methodical manual for practical

training in pathological anatomy. Moscow: RUDN Publishing House, 2019. - 32 p.

http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=478307&idb=0

## Additional readings:

## Electronic full-text materials:

 Pathologic anatomy [Electronic resource]: Textbook / A. I. Strukov, V. V. Serov; Edited by V. S. Paukov. - 6th ed., reprint. Moscow: GEOTAR-Media, 2015, 880 p. (in Russian).

http://lib.rudn.ru/MegaPro/UserEntry?Action=Rudn\_FindDoc&id=456496&idb=0

## **Printed publications:**

- 1. Chernobay G.N. pathological anatomy of the orofacial region of the head and neck. Textbook / GBOU VPO KemGMA of the Ministry of Health and Social Development of Russia. KemGMA, 2011. 118 p.
- 2. Chumakov A.A. Orofacial pathology. Textbook / Edited by prof. O.V. Zairati. M.: MGMSU, 2004. 340 p.: ill.
- Babichenko I.I., Ivina A.A., Kharchenko N.M. Brief description of the main pathological processes. Specialty "Medicine". - M.: Publishing House of RUDN University, 2014. - 47 p.
- 4. Babichenko I.I., Ivina A.A. Dictionary of basic pathoanatomical terms. Specialty "Medicine". - M.: Publishing House of RUDN University, 2014. - 48 p.
- 5. Gribunov Yu.P., Rogov K.A., Shestakova I.N., Ivina A.A. Basic principles of registration of the final clinical and pathoanatomical diagnoses. M .: Publishing house of RUDN University, 2015.- 19 p.
- 6. Babichenko I.I., Vladimirtseva A.L., Kovyazin V.A., Kharchenko N.M. Guide to laboratory studies in pathological anatomy. M.: RUDN, 2008. 249 p.
- 7. Vladimirtseva A.L. parasitic diseases. Educational and methodical manual for a practical lesson in pathological anatomy. M.: RUDN, 2009. 31 p.
- 8. Gribunov Yu.P., Shestakova I.N., Babichenko I.I. immunopathological processes. Educational and methodical manual for a practical lesson in pathological anatomy. M.: RUDN, 2009. 23 p.
- 9. Zayratyants O.V. and others. Pathological anatomy: Atlas. M: GEOTAR-Media, 2009. 472 p.
- Zairatyants O.V., Kaktursky L.V. Formulation and comparison of clinical and pathoanatomical diagnoses. Handbook. - 2nd ed., revised. and add. - M .: LLC Medical Information Agency, 2011.-576s.
- 11. Microscopic technique: Guide / Ed. D.S. Sarkisov and Yu.L. Perov. M.: Medicine, 1996. 544 p.
- 12. Pathological diagnostics of human tumors: A guide in 2 volumes / Ed. N.A. Kraevsky, A.V. Smolyannikov, D.S. Sarkisov. M.: Medicine, 1993.
- 13. Sapozhnikov A.G., Dorosevich A.E. Histological and microscopic technique: A guide. Smolensk: SAU, 2000. 476s.
- Serov V. Methods for verifying a morphological diagnosis // Vrach. 2000. -No. 12. - P.22-23.

- 15. M. A. Paltsev, V. L. Kovalenko, and N. M. Anichkov, Russ. Guide to the biopsy-sectional course. M.: Medicine, 2002. 256 p.: ill.
- 16. Brandwein, M. S. (2017). Textbook of Head and Neck Pathology: Volume 1: Nose, Paranasal Sinuses, and Nasopharynx (1st ed. 2016 ed.). Springer. https://doi.org/10.1007/978-3-319-33323-6
- 17. Brandwein-Weber, M. S. (2018). Textbook of Head and Neck Pathology: Volume 2: Mouth, Oropharynx, and Larynx (1st ed. 2018 ed.). Springer. https://doi.org/10.1007/978-3-319-76106-0
- 18. Cardesa, A., Slootweg, P. J., Gale, N., & Franchi, A. (2017). Pathology of the Head and Neck (2nd ed. 2016 ed.). Springer. https://doi.org/10.1007/978-3-662-49672-5
- Range, E. D., & Jiang, ".X. (2019). Practical Head and Neck Pathology: Frequently Asked Questions (Practical Anatomic Pathology) (1st ed. 2019 ed.). Springer. <u>https://doi.org/10.1007/978-3-030-10623-2</u>
- 20. Volavšek, M. (2016). Head and Neck Pathology (Encyclopedia of Pathology) (1st ed. 2016 ed.). Springer. <u>https://doi.org/10.1007/978-3-319-28618-1</u>

#### Internet-(based) sources:

### 1. Electronic libraries with access for RUDN students

- 1. -RUDN University Electronic Library System-RUDN <u>University Electronic</u> Library System http://lib.rudn.ru/MegaPro/Web
  - EBS "University Library online" <u>http://www.biblioclub.ru</u>
  - EBS Urite <u>http://www.biblio-online.ru</u>
  - EBS "Student's consultant" www.studentlibrary.ru
  - EBS "Lan" <u>http://e.lanbook.com/</u>
  - EBS "Troitsky Bridge"
  - Full collection of Cambridge University Press journals https://www.cambridge.org/core
  - Journals, published by Nature Publishing Group http://www.nature.com/siteindex/index.html
  - Oxford Journals, a complete collection of journals <u>https://academic.oup.com/journals/</u>
  - Archive of scientific journals published by SAGE Publications <u>http://arch.neicon.ru/xmlui/handle/123456789/2757634/browse?type=sourc</u> <u>e</u>
  - Science online, American Association for the Advancement of Science
  - (AAAS) <u>http://science.sciencemag.org/content/by/year</u>
  - ScienceDirect (ESD), «FreedomCollection», ИД "Elsevier" <u>http://www.sciencedirect.com/</u>
  - Electronic resources of Springer publishing house https://rd.springer.com/
  - Taylor & Francis journals <u>https://www.tandfonline.com/</u>
  - Thieme <u>https://science-of-synthesis.thieme.com/</u>
  - Wiley Online Library a multidisciplinary collection of journals <u>http://www.wileyonlinelibrary.com/</u>
- 2. Databases and search engines:
  - Discipline page in TUIS RUDN University: https://esystem.rudn.ru/course/view.php?id=2079

- U.S. National Library of Medicine National Institutes of Health: <u>http://www.ncbi.nlm.nih.gov/pubmed/</u>
- Scientific electronic library: http://elibrary.ru/defaultx.asp
- Website of the Russian Society of Pathologists <u>http://patholog.ru</u>
- Website of the Royal College of Pathologists https://www.rcpath.org/
- Pathological Anatomy Information Database <u>https://www.pathologyoutlines.com/</u>
- Online courses archive of video lectures on pathological anatomy Medical School Pathology <u>https://www.medicalschoolpathology.com/</u>
- Online Pathological Anatomy Laboratory of the University of Utah <a href="https://webpath.med.utah.edu/">https://webpath.med.utah.edu/</a>
- Information online resource on pathological anatomy <u>http://www.pathguy.com/</u>
- WebPathology Slides Database https://www.webpathology.com/
- Micropreparations Juan Rosai's Collection <u>https://www.rosaicollection.org/</u>

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

1. The set of lectures on the course Pathologic Anatomy - Pathologic Anatomy of Head and Neck"

2. The laboratory workshop (if any).on the course Pathologic Anatomy - Pathologic Anatomy of Head and Neck"

3. The guidelines for writing a course paper / project (if any) on the course Pathologic Anatomy - Pathologic Anatomy of Head and Neck"

\* 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<sup>\*</sup> to evaluate the competences formation level (GPC-5.8; GPC-5.9.; GPC-9.3; PC-1.5) 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:**

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pathological Anatomy of MI		I. I. Babichenko	
position, department	signature	name and surname	
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