Institute of Medicine

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

COURSE SYLLABUS

AUTOPSY COURSE

(name of the discipline / module)

Recommended by the Didactic Council for the Education Field of/ specialty:

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:

31.05.01 General Medicine

higher education programme profile/specialisation title

1. COURSE GOAL(s)

The goal of the course "Autopsy Course" is to equip students with knowledge about the structure of the pathoanatomical service, teaching students the rules for formulating the final pathoanatomical diagnosis and the principles of comparing it with the clinical one, in accordance with the recommendations of WHO experts set out in the International Statistical Classification of Diseases and Problems Related to Health of the Tenth revision (ICD-10) and use of the acquired knowledge in the work of a general practitioner. Gaining knowledge about the possibilities of lifelong morphological diagnostics and the acquisition of skills in the use of pathoanatomical findings in medical and diagnostic work.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "**Autopsy course**" is aimed at the development of the following competences /competences in part: GPC-2.7; GPC-1.1; GPC-1.2.

Competence code	Competence descriptor	Competence formation indicators (within this course)
GPC-2	Able to conduct an examination of the patient in order to establish a diagnosis	GPC-2.7 Ability to perform differential diagnosis with other diseases/conditions, including urgent ones, as well as establish a diagnosis based on the current international statistical classification of diseases and related health problems (ICD).
GPKC1	Able to implement legal norms, ethical and deontological principles in professional activities	GPC-1.1. Ability to observe moral and legal norms in professional activities.GPC-1.2 Ability to present professional information in the process of cross-cultural interaction, observing the principles of ethics and deontology

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*
GPC-1	Able to assess morphofunctional,	Propaedeutics of internal diseases,	Anatomy of the Central Nervous System,

Compet ence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
	physiological conditions and pathological processes in the human body to solve professional problems.	radiation diagnostics, Faculty Therapy, Occupational diseases, Hospital Therapy, Endocrinology, Infectious Diseases, Pathophysiology, Endoscopy, General Surgery, Radiation diagnostics, Faculty Surgery, Urology, Hospital Surgery, Pediatric Surgery, Oncology, Radiation Therapy, Gynecology, Traumatology and Orthopedics, Maxillofacial Surgery, Hematology, Pathological Anatomy, Clinical pathological Anatomy	Maxillofacial surgery, Reproductive health
GPC-2	SPC-2.7. Able to make a differential diagnosis with other diseases/conditions, including emergencies, as well as establish a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD).	Propaedeutics of internal diseases, radiation diagnostics, Faculty therapy, occupational diseases, Hospital therapy, Endocrinology, Infectious diseases, Pathophysiology, Endoscopy, General Surgery, Radiation diagnostics, Faculty Surgery, Urology, Hospital Surgery, Pediatric Surgery, Oncology, Radiation therapy, Gynecology, Traumatology and Orthopedics, Maxillofacial Surgery, Hematology, Pathological anatomy,	of the Central Nervous System, Maxillofacial Surgery, Reproductive health

Compet ence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
		Clinical pathological anatomy	

* 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>is</u> credits (_____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	Semesters/training modules			
		academic hours	12			
Contact academic hours		36	36			
including:						
Lectures (LC)		-	-			
Lab work (LW)		16	16			
Seminars (workshops/tutorials)	Seminars (workshops/tutorials) (S)					
Self-studies		20	20			
Evaluation and assessment (exam/passing/failing grade)		-	-			
Course workload academic hours_		36	36			
credits		1	1			

5. COURSE CONTENTS

Course module title	Course module contents (topics)	Academic activities types
Module 1 Organization of work of the pathoanatomical service.	Introduction to the specialty of pathological anatomy. History of the development of pathological anatomy. Features and forms of organization of pathoanatomical work in medical institutions. Medical ethics and deontology. Features of ethics and deontology in pathological anatomy.	LW
Module 2 Rules for conducting sectional studies.	Rules of conduct in the sectional room, doctor's clothes. Safety behavior in the sectional. Compliance with sanitary and anti- epidemic rules of work in the sectional room	LW

Table 5.1. Course contents and academic activities types

Course module contents (topics)	Academic activities
Course module contents (topics)	
and biopsy unit. Features of the doctor's clothing in case of suspected infectious diseases. General techniques, working with tools. Evisceration according to Shore, according to Virchow, Abrikosov, incision according to Leshka. The order of autopsy: external examination of the deceased, the state of the musculoskeletal system. Opening the cranial cavity and examining its contents, examining the pituitary gland. Opening the chest, examination of the organs of the chest cavity, testing for pneumothorax and air embolism. Opening of the abdominal cavity, examination of the retroperitoneal space. Responsibilities of the clinician for the collection, fixation, labeling, storage and delivery of biopsy and surgical material to the histological laboratory. Rules for issuing relevant accompanying documents to the histological laboratory. Responsibility of the clinician for the timing and quality of the material and documents sent. Safety equipment, doctor's clothing. Receiving operational material. Clipping. Processing of	types
View biopsy samples. Terms of storage and rules for issuing sectional and biopsy-surgical material (histological preparations, blocks, wet archive) and documents.	
Underlying disease, competing diseases, combined diseases, background diseases. Complication of the underlying disease. Concomitant disease. Rules for issuing a medical death certificate. Categories of diagnosis discrepancies. Objective and subjective causes of diagnostic errors.	LW
	clothing in case of suspected infectious diseases. General techniques, working with tools. Evisceration according to Shore, according to Virchow, Abrikosov, incision according to Leshka. The order of autopsy: external examination of the deceased, the state of the musculoskeletal system. Opening the cranial cavity and examining its contents, examining the pituitary gland. Opening the chest, examination of the organs of the chest cavity, testing for pneumothorax and air embolism. Opening of the abdominal cavity, examination of the digestive system, examination of the retroperitoneal space. Responsibilities of the clinician for the collection, fixation, labeling, storage and delivery of biopsy and surgical material to the histological laboratory. Rules for issuing relevant accompanying documents to the histological laboratory. Responsibility of the clinician for the timing and quality of the material and documents sent. Safety equipment, doctor's clothing. Receiving operational material. Clipping. Processing of the material in the laboratory. Urgent biopsies. View biopsy samples. Terms of storage and rules for issuing sectional and biopsy-surgical material (histological preparations, blocks, wet archive) and documents.

* - 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

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)
Lab work	Autopsy Hall No. 1 Autopsy hall with standard equipment; pathologist's office; pre-section room	Autopsy tables, professional tools, scales for demonstrating the conduct of a pathoanatomical examination of the deceased; furniture set (tables, chairs).
Lab work	Autopsy Hall No. 2 Autopsy hall with standard equipment; pathologist's office; pre-section room.	Sectional tables, professional tools, scales for demonstrating the conduct of a pathoanatomical examination of the deceased; furniture set (tables, chairs)
Seminar	An auditorium for conducting seminar-type classes, group and individual consultations, current control and intermediate certification, equipped with a set of specialized furniture and technical means for multimedia presentations.	A set of specialized furniture; technical means: TOSHIBA X200 multimedia projector, ASUS F9E Core 2 DUO T5750 laptop, Internet access. Software: Microsoft products (OS, office suite, including MS Office / Office 365, Teams, Skype) list of specialized equipment, stands, visual posters, etc.
Self-studies	Classroom for self-study of students (can be used for seminars and consultations), equipped with a set of specialized furniture and technical means of multimedia presentations.	A set of specialized furniture; technical means: LG widescreen monitor, personal computer. Software: Microsoft products (OS, office suite, including MS Office / Office 365, Teams, Skype) list of specialized equipment, stands, visual posters, etc.

* The premises for students' self-studies are subject to <u>MANDATORY</u> mention

7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main reading (sources):

- 1. Drawing up a descriptive part of the autopsy protocol: a teaching aid / K.A. Rogov. - Electronic text data. - M.: Publishing House of RUDN University, 2020. - 24 p.
- 2. Autopsy. Fundamentals of dissecting practice: a guide / P.V. Shuravin -M.: Publishing house GEOTAR Media, 2021. -160 p.

- 3. Macroscopic examination of biopsy and surgical material: A guide for pathologists / Krivolapov Yu.A. M.: Publishing House of Practical Medicine, 2019. 352 p.
- 4. Guide to the biopsy-sectional course / Fingers M.A. M.: Shiko, 2015. 256 p.
- 5. International statistical classification of diseases and health-related problems. -Tenth revision. - Volume 3 - Methodological instructions. - Geneva. - WHO. - M.: Medicine, 1998. - 923 p.: ill. - (ICD-10).
- International Statistical Classification of Diseases and Related Health Problems. -Tenth Revision. - Volume 1 - Guidelines. - Geneva. - WHO. -M.: Medicine, 1995. -698 p.: ill. - (ICD-10).
- International Statistical Classification of Diseases and Related Health Problems. -Tenth Revision. - Volume 2 - Guidelines. - Geneva. - WHO. -M.: Medicine, 1995. -179 p.: ill. - (ICD-10).

Additional readings:

Printed publications:

- 1. 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.
- 2. Zayratyants O.V. and others. Pathological anatomy: Atlas. M: GEOTAR-Media, 2009. 472 p.
- 3. 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.
- 4. Microscopic technique: Guide / Ed. D.S. Sarkisov and Yu.L. Perov. M.: Medicine, 1996. 544 p.
- 5. Sapozhnikov A.G., Dorosevich A.E. Histological and microscopic technique: A guide. Smolensk: SAU, 2000. 476s.
- Serov V. Methods for verifying the morphological diagnosis // Vrach. 2000. No. 12. - P.22-23.
- Lemos, M. B., & Okoye, E. (2019). Atlas of Surgical Pathology Grossing (Atlas of Anatomic Pathology) (1st ed. 2019 ed.). Springer. https://doi.org/10.1007/978-3-030-20839-4

Internet-(based) sources:

1. Electronic libraries with access for RUDN students

- 1. -RUDN University Electronic Library System-RUDN <u>University Electronic</u> <u>Library System http://lib.rudn.ru/MegaPro/Web</u>
 - EBS "University Library online" <u>http://www.biblioclub.ru</u>
 - EBS Urite <u>http://www.biblio-online.ru</u>
 - EBS "Student's consultant" <u>www.studentlibrary.ru</u>
 - 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 https://academic.oup.com/journals/
 - Archive of scientific journals published by SAGE Publications http://arch.neicon.ru/xmlui/handle/123456789/2757634/browse?type=sourc e
 - Science online, компании American Association for the Advancement of Science
 - (AAAS) <u>http://science.sciencemag.org/content/by/year</u>
 - ScienceDirect (ESD), «FreedomCollection», ИД "Elsevier" http://www.sciencedirect.com/
 - Electronic resources of Springer publishing house https://rd.springer.com/
 - Taylor & Francis journals <u>https://www.tandfonline.com/</u>
 - Thieme https://science-of-synthesis.thieme.com/
 - Wiley Online Library a multidisciplinary collection of journals http://www.wileyonlinelibrary.com/

- 2. Databases and search engines:
 - electronic fund of legal and regulatory and technical documentation <u>http://docs.cntd.ru/</u>
 - Yandex search engine <u>https://wwwww.yandex.ru/</u>
 - Google search engine <u>https://www.google.ru/</u>
 - SCOPU S abstract databaseS http://www.elsevierscience.ru/products/scopus/
 - RUDN University Training Portal: <u>http://web-local.rudn.ru/web-local/kaf/rj/index.php?id=86</u>
 - 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 http://patolog.ru
 - Website The Royal College of Pathologists <u>https://www.rcpath.org/</u>
 - Information database on pathological anatomy <u>https://www.pathologyoutlines.com/</u>
 - Online Laboratory of Pathological Anatomy at the University of Utah <u>https://webpath.med.utah.edu/</u>

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

- 1. The set of lectures on the course "Autopsy course"
- 2. The laboratory workshop (if any).on the course "Autopsy course"

3. The guidelines for writing a course paper / project (if any) on the course "Autopsy course".

4.

* 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-2.7; GPC-1.1; GPC-1.2.) 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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