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## mous Educational Institution of Higher Education FRIENDSHIP UNIVERSITY OF RUSSIA RUDN University

#### **Institute of Medicine**

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

## **COURSE SYLLABUS**

**Internal Medicine** 

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 "Internal Medicine" is to equip students with the knowledge of knowledge about the professional skills of examining a patient on the basis of studying the main symptoms and syndromes of internal diseases, clinical and additional methods of research, mastering the methodology of diagnosis and treatment principles, also the formation of their professional medical and general cultural competence in matters of the structural organization of the basic processes of vital activity of the organism.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) "Internal Medicine" is aimed at the development of the following competences /competences in part GPC-5, GPC-6.

Competence	Competence descriptor	Competence formation indicators
code		(within this course) GPC-5.1. Gathering anamnesis by analysing the patient's complaints, making a physical examination at a dental appointment. GPC-5.2. Formulating a preliminary diagnosis
GPC-5	Being able to examine patients to determine a diagnosis when solving professional tasks	and drawing up a plan for laboratory and instrumental examinations of a dental patient. GPC-5.3. Compiling medical documentation for a dental patient in accordance with regulatory requirements. GPC-5.4. Referring a patient to a laboratory examination in case there are medical indications 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 dental care. GPC-5.5. Referring a patient to an instrumental examination in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of dental care taking into account the standards. GPC-5.6. Referring a patient for a consultation with medical specialists in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of dental care taking into account the standards. GPC-5.7. Referring a patient to be provided with specialized medical care in an inpatient conditions or in a day hospital in case there are medical indications in accordance with the

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

Competence code	Competence descriptor	<b>Competence formation indicators</b> (within this course)
		<ul> <li>current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of dental care.</li> <li>GPC-5.8. Conducting differential diagnosis with other diseases/conditions, including the urgent ones.</li> <li>GPC-5.9. Making a diagnosis based on the current international statistical classification of diseases and health problems.</li> </ul>
GPC-6	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	<ul> <li>GPC-6.1. Developing a plan for dental disease treatment 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 medical care standards.</li> <li>GPC-6.2. Selecting medical products (including dental materials) for drawing up a comprehensive plan for dental disease treatment. Following up the treatment of a patient.</li> <li>GPC-6.3. Assessing the possible side effects of taking medicinal drugs.</li> <li>GPC-6.4. Providing medical care to a dental patient in emergency or urgent forms.</li> <li>GPC-6.5. Organizing the prevention and treatment of complications, side effects, undesirable reactions, including the unforeseen ones, which can arise from diagnostic or medicinal manipulations, use of drugs and (or) medical devices, non-drug treatment of a dental appointment.</li> <li>GPC-6.6. Organizing personalized treatment of a dental appointment.</li> <li>GPC-6.7. Prescribing medicinal drugs, medical devices, taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment procedures for the provision of medical care, clinical guidelines (treatment procedures for the provision of medical care, clinical guideli</li></ul>

Competence code	Competence descriptor	<b>Competence formation indicators</b> (within this course)		
		care taking into account the medical care standards. GPC-6.9. Evaluating the efficacy and safety of using medicinal drugs, medical devices and other methods of treatment at a dental appointment.		

## 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-5	Being able to examine patients to determine a diagnosis when solving professional tasks	Biology, Histology, Embriology, Anatomy	Pediatrics, Neurology, Infectious Diseases, Phthisiology
GPC-6	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	Biology, Histology, Embriology, Anatomy	Pediatrics, Neurology, Infectious Diseases, Phthisiology

\* 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 "Internal Medicine" is 7 credits (252 academic hours). Table 4.1. Types of academic activities during the periods of higher education programme mastering (*full-time training*)\*

	Total	Semester	rs/training	modules
Type of academic activities	academic	5	6	7
	hours			
Contact academic hours	170	68	54	48
including:				
Lectures (LC)				
Lab work (LW)				

		Total	Semester	s/training	modules
Type of academic activi	ties	academic	5	6	7
		hours			
Seminars (workshops/tutorials)	(S)	170	68	54	48
Self-studies	Self-studies		17	18	32
Evaluation and assessment		15	8	6	1
(exam/passing/failing grade)					
Course workload	academic	252	93	78	81
	hours_				
	credits	7	2	2	3

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

# **5. COURSE CONTENTS**

Table 5.1. Course of	contents and academic activities types	
Course module title		

Course module title	<b>Course module contents (topics)</b>	Academic activities types
Module 1 Methods of	General condition, consciousness, position, build,	S
physical examination of	assessment of the skin and mucous membranes,	
the patient	lymph nodes, muscular system, joints (4 hours).	
Module 2 Case history.	Case history writing scheme (4 hours).	S
Questioning the patient.		
General examination of		
the patient.		
Module 3 Methods for	The main complaints. Physical research methods	S
the study of respiratory	(examination, palpation, percussion,	
the study of respiratory	auscultation). Instrumental research methods,	
organs	laboratory research methods. The main clinical	
	syndromes. Basics of private pathology	
	(pneumonia, COPD, bronchial asthma) (4 hours).	
Module 4 Methods of	The main complaints. Physical research methods	S
study of the circulatory	(examination, palpation, percussion,	
study of the encutatory	auscultation). Instrumental research methods,	
system	laboratory research methods. The main clinical	
	syndromes. Fundamentals of private pathology	
	(AH, CHD, NC, Atherosclerosis, rheumatism,	
	defects) (32 hours).	
Module 5 Methods of	The main complaints. Physical research methods	S
study of the digestive	(examination, palpation, percussion, auscultation). Instrumental research methods,	
system	laboratory research methods. The main clinical	
system	syndromes. Fundamentals of private pathology	
	(gastritis, ulcers, bowel disease) (8 hours).	
Module 6 Methods for	The main complaints. Physical research methods	S
	(examination, palpation, percussion,	~
the study of the liver and	auscultation). Instrumental research methods,	
biliary tract	laboratory research methods. The main clinical	
	syndromes. Fundamentals of private pathology	
	(hepatitis, cirrhosis, cholecystitis, JCB) (8 hours).	

Course module title	Course module contents (topics)	Academic activities types
Module 7 Methods of	The main complaints. Physical research methods	S
······································	(examination, palpation, percussion,	
examination of the	auscultation). Instrumental research methods,	
kidneys and urinary tract	laboratory research methods. The main clinical	
	syndromes. The basics of private pathology	
	(pyelonephritis, glomerulonephritis, chronic renal	
	failure, acute kidney injury) (8 hours).	
Module 8 Methods for	The main complaints. Physical research methods	S
••• 4 11 1	(examination, palpation, percussion,	
examining the blood-	auscultation). Instrumental research methods,	
forming organs	laboratory research methods. The main clinical	
6 6	syndromes. Basics of private pathology (anemia,	
	leukemia) (17 hours).	
Module 9 Endocrine	The main complaints. Physical research methods	S
	(examination, palpation, percussion,	~
Research Methods	auscultation). Instrumental research methods,	
	laboratory research methods. The main clinical	
	syndromes. Fundamentals of private pathology	
	(thyroid disease, diabetes) (6 hours).	
Module 10 Respiratory	Etiology, pathogenesis, features of clinical	S
Wodule To Respiratory	manifestations and complications of lung	5
diseases	diseases; principles of treatment of pulmonary	
	pathology (pneumonia, COPD, bronchial asthma,	
	lung cancer, tuberculosis)	
Module 11 Diseases of		S
Module 11 Diseases of	Etiology, pathogenesis, peculiarities of clinical	3
the circulatory system	manifestations and complications of heart and	
	vascular diseases; principles of treatment of	
	cardiac pathology (rheumatism, heart defects,	
	infective endocarditis, ischemic heart disease, ox,	
	cardiomyopathy, arterial hypertension, cardiac	
	arrhythmias, heart failure, ECG,	
	echocardiography)	9
Module 12 Kidney	Etiology, pathogenesis, features of clinical	S
disease	manifestations and complications of lung	
	diseases; principles of treatment of renal	
	pathology (glomerulonephritis, amyloidosis,	
	pyelonephritis, acute and chronic renal failure,	
11 1 1 10 51	hemodialysis, kidney transplantation)	
Module 13 Diseases of	Etiology, pathogenesis, peculiarities of clinical	S
the endocrine system	manifestations and complications of thyroid	
ine endoernie system	diseases, diabetes mellitus; principles of	
	treatment.	
Module 14 Diseases of	Etiology, pathogenesis, features of clinical	S
the gastrointestinal tract	manifestations and complications of diseases of	
nie gasuonnesunai tract	the gastrointestinal tract and liver; principles of	
and liver	treatment (peptic ulcer, diseases of the small and	
	large intestines, acute and chronic hepatitis,	
	cirrhosis of the liver)	

Course module title	Course module contents (topics)	Academic activities types
Module 15 Diseases of	Etiology, pathogenesis, peculiarities of clinical	S
the blood	manifestations and complications of blood diseases; principles of treatment (anemia, acute and chronic leukemia)	
Module 16 Diseases of	Etiology, pathogenesis, clinical picture,	S
the joints	diagnosis, complications, treatment (gout, osteoarthritis deformans, rheumatoid arthritis, ankylosing spondylitis, reactive and paraneoplastic arthritis)	

\* - 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)
Lecture	A lecture hall for lecture-type classes, equipped with a set of specialised furniture; board (screen) and technical means of multimedia presentations.	
Lab work	A classroom for laboratory work, individual consultations, current and mid-term assessment; equipped with a set of specialised furniture and machinery.	List of specialised laboratory equipment, machinery, stands, etc.
Seminar	A classroom for conducting seminars, group and individual consultations, current and mid- term assessment; equipped with a set of specialised furniture and technical means for multimedia presentations.	List of specialised equipment, stands, visual posters, etc.
Computer Lab	A classroom for conducting classes, group and individual consultations, current and mid-term assessment, equipped with personal computers (in the amount ofpcs), a board (screen) and technical means of multimedia presentations.	List of specialised software installed on computers for mastering the discipline
Self-studies	A classroom for independent work of students (can be used for seminars and consultations), equipped with a set of specialised furniture and computers with access to the electronic information and educational environment.	

Table 6.1. Classroom equipment and technology support requirements

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

1. Internal diseases I-II volumes. Editors in chief: Martynov A.I., Kobalava Zh.D., Moiseev S.V. 2021, Moscow, GEOTAR.

2. Fundamentals of Internal Medicine. A guide in 2 volumes for doctors. Chief editors: Moiseev VS, Kobalava ZhD, Maev IV, Kaprin AD, Gusev EI, Shestakova MV, Moiseev SV. Moscow: LLC "Medical Information Agency", 2020. 688 pages.

3.Propedeutics of internal diseases under the editorship of V.S.Moiseev, N.A.Mukhin. Geotar-Media. P. 532,-2013.

4. Essentials of diagnostics of internal deseases under the editorship of Z.D.Kobalava. M.- PFUR, 326 p.-2011

5. V.S.Moiseev, S.V.Moiseev, Z.D.Kobalava. under the editorship of V.S.Moiseev. Internal diseases with introduction into evidence-based medicine and clinical pharmacology. Under the editorship of V.S.Moiseev.2008. Geotar-Media. P. 832. 104 P.

6. V.S.Moiseev, S.V.Moiseev, Z.D.Kobalava. Heart diseases. M. Medical informative agency.2008. 528P.

7. Z.D.Kobalava, Y.V. Kotovskaya, V.S.Moiseev. Arterial hypertension; diagnosis and treatment. M: Geotar-Media. 2009. 864P

8. Kobalava Zh.D., Troitskaya E.A. (and etc.). Diseases of the circulatory system. RUDN University Publishing House, Moscow. 2020 - 54s

9. Kobalava Zh.D., Shavarova E.K. (and etc.). Respiratory diseases. RUDN University Publishing House, Moscow. 2020 - 120 p.

10. Kobalava Zh.D., Bagmanova N.Kh. (and etc.). Diseases of the gastrointestinal tract. RUDN University Publishing House, Moscow. 2020 - 90 p.

11. Kobalava Zh.D., Efremovtseva M.A. (and others). Kidney disease. RUDN University Publishing House, Moscow. 2020 - 38 p.

12. Kobalava Zh.D., Khasanova E.R. (and etc.). Diseases of the endocrine organs. RUDN University Publishing House, Moscow. 2020 - 54s.

13. Kobalava Zh.D., Troitskaya E.A. (and etc.). Diseases of the hematopoietic organs. RUDN University Publishing House, Moscow. 2020 - 45 p.

14. Kobalava Zh.D., Markova M.A. (and etc.). Workshop on propaedeutics of internal diseases. RUDN University Publishing House, Moscow. 2016 - 176 p.

15. Kobalava Zh.D., Villevalde S.V. (and etc.). Diagnosis and its rationale. RUDN University Publishing House, Moscow. 2017 - 188 p.

16. Kobalava Zh.D., Safarova A.F. Clinical ECG. RUDN University Publishing House, Moscow. 2017 - 112 p.

17. Internal diseases. Key points. Editors in chief Kobalava Zh.D., Moscow, GEOTAR. P.656-2022.

#### Additional readings:

1. Kobalava Zh.D., Lazarev P.V., Kotova E.O. Internal medicine in clinical observations. Internal medicine in clinical observations: selected / team of authors; ed. Zh.D. Kobalava. - Moscow: RUDN, 2020 .-- 708 p.: Ill.

2. S.V. Velmakin, S.A. Galochkin, E.A. Troitskaya, R.A. Osipyants, N.Kh. and other Propedeutics of internal diseases. Study guide for practical training. Ed. Kobalava Zh.D .. - Moscow: RUDN, 2019.-51s.

3. Kobalava Zh.D., Konradi A.O., Nedogoda S.V., Shlyakhto E.V. and other Arterial hypertension in adults. Clinical guidelines 2020. Russian journal of cardiology. 2020; 25 (3): 3786 Cnh 149-218.

4. Mareev V.Yu., Gilyarevsky S.R., Mareev Yu.V., Begrambekova Yu.L., Belenkov Yu.N., Kobalava Zh.D., et al. Consensus opinion of experts on the role of iron deficiency in patients with chronic heart failure, as well as modern approaches to its correction. Cardiology. 2020; 60 (1): 99-106.

5. Hoang Ch.Kh., Lazarev P.V., Maiskov V.V., Merai I.A., Kobalava Zh.D. Myocardial infarction without coronary artery obstruction: modern approaches to diagnosis and treatment. Rational Pharmacotherapy in Cardiology 2019; 15 (6): 881-891.

6. Kobalava Zh.D., Villevalde S.V., Efremovtseva M.A. (under the editorship of Zh.D. Kobalava, V.S. Moiseev). Fundamentals of cardiorenal medicine. Monograph. Moscow, GEOTAR-Media. 2014 .-- 256 p.

7. Kobalava Zh.D., Troitskaya E.A. Asymptomatic hyperuricemia and the risk of developing cardiovascular and renal diseases. Cardiology. 2020; 60 (10): 113–121, SCOPUS Q4.

8. Avdoshina S.V., Bagmanova N.Ch., Troitskaya E.A. and other. Methodological recommendations for practical trainings on propaedeutics of internal diseases. Editors in chief Kobalava Zh.D. RUDN University Publishing House, Moscow. 2022-132 p.

9. Avdoshina S.V., Bagmanova N.Ch., Troitskaya E.A. and other. Control questions for practical trainings propaedeutics of internal diseases. Editors in chief Kobalava Zh.D. RUDN University Publishing House, Moscow. 2022-102 p.

#### 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" <u>http://e.lanbook.com/</u>
- EL "Trinity Bridge"

#### 2. Databases and search engines:

- electronic foundation of legal and normative-technical documentation <u>http://docs.cntd.ru/</u>

- Yandex search engine https://www.yandex.ru/

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

1) Simulators with the ability to simulate various variants of clinical scenarios for practicing patient examination skills, formulating a preliminary diagnosis, therapeutic approaches.

- Software: Cardionics SAMII

2) Anatomical models of various organ systems. Used to visualize the development of the pathological process in the body of interest and its influence on the data obtained during the inspection.

3) The system of interactive survey to assess the quality of mastering the material. Used after lectures, workshops, on colloquiums. Each student can get acquainted with the results of his answers using the department portal.

- Software: Turning Technologies

4) LCD panels in most classrooms, multimedia projectors. Used to demonstrate educational material. Have the ability to wirelessly connect to data sources (laptop, tablet), the Internet.

- Software: Windows, Office 365 software package

5) A library of images with signs of various pathologies (updated by members of the department), descriptions of clinical cases, electrocardiograms. Available to every teacher, student through the relevant sections of the department portal.

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

1. The set of lectures on the course "Internal Medicine"

\* 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-5, GPC-6) 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 professor of the Department of Internal Medicine with a course of cardiology and		Avdoshina S. V.
functional diagnostics		
position, department	signature	name and surname
Head of the Department of Internal Medicine with a course of cardiology and		Kobalava Zh. D.
functional diagnostics		
position, department	signature	name and surname
<b>HEAD OF EDUCATIONAL DEPA</b> of Internal Medicine with a course of cardiology and functional diagnostics	RTMENT:	Kobalava Zh. D.
name of department	signature	name and surname

#### HEAD OF HIGHER EDUCATION PROGRAMME:

# First Deputy Director of Medical

Institute for academic affirs

position, department

signature

name and surname

Razumova S.N