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**Federal State Autonomous Educational Institution of Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
RUDN University**

**Institute of Medicine**

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

## **COURSE SYLLABUS**

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### **Professional Diseases**

course title

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

**31.05.01 General Medicine**

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field of studies / speciality code and title

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

**General Medicine**

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higher education programme profile/specialisation title

**2022-2023**

## 1. COURSE GOAL(s)

The goal of the course “Professional diseases” is to equip students with the knowledge in occupational pathology, the ability to correctly make a diagnosis, to make a differential diagnosis with similar diseases, to determine the clinical and labor prognosis of a particular patient, to acquire knowledge about modern methods of examination, treatment and prevention of occupational diseases.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course (module) “Professional diseases” is aimed at the development of the following competences /competences in part: GPC-1; GPC-5; GPC-10, PC-2, PC -3.

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

<b>Competence code</b>	<b>Competence descriptor</b>	<b>Competence formation indicators (within this course)</b>
GPC-1	Able to implement moral and legal norms, ethical and deontological principals in professional activity	GPC-1.1. Able to abide by the ethical standards and legal regulations in professional activity.
		GPC-1.2. Able to present professional information in the process of intercultural interaction observing the principles of ethics and deontology.
GPC-5	Able to assess morpho-functional, physiological conditions and pathological processes in the human body to solve professional tasks	GPC-5.1. Mastering the algorithm of clinical, laboratory and functional diagnosis when dealing with professional tasks.
		GPC-5.2. Able to evaluate the results of clinical, laboratory and functional diagnosis when dealing with professional tasks.
		GPC-5.3. Able to determine morpho-functional, physiological states and pathological processes of the human body.

GPC-10	Able to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies, taking into account the basic requirements of information security.	<p>GPC-10.1. Able to use information technology in professional activity.</p> <p>GPC-10.2. Able to observe the information security rules in professional activity.</p> <p>GPC-10.3. Able to use information and communication technologies, including general and special purpose application software in solving professional tasks.</p>
PC-2	Able to examine a patient in order to determine a diagnosis	<p>PC-2.1. Mastering the skills to collect complaints, anamnesis of the patient's life and disease, as well as conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation).</p> <p>PC-2.2. Able to make a preliminary diagnosis and make up a plan of laboratory and instrumental examinations of a patient.</p> <p>PC-2.3. Able to refer 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 medical care standards.</p>

		<p>PC-2.4. Able to refer 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 medical care taking into account the standards of medical care.</p>
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		<p>PC-2.1. Mastering the skills to collect complaints, anamnesis of the patient's life and disease, as well as conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation).</p>
		<p>PC-2.2. Able to make a preliminary diagnosis and make up a plan of laboratory and instrumental examinations of a patient.</p>
		<p>PC-2.3. Able to refer 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 medical care standards.</p>
		<p>PC-2.4. Able to refer 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 medical care taking into account the standards of medical care.</p>
		<p>PC-2.5. Able to refer a patient to consult with a medical specialist if there is a medical indication 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.</p>
		<p>PC-2.6. Able to refer a patient to be provided with specialized medical care in an inpatient setting or in a day hospital 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 medical care</p>

		<p>PC-2.7. Able to carry out differential diagnosis with other diseases/conditions, including the urgent ones, as well as to make a diagnosis taking into account the current international statistical classification of diseases and problems related to health (ICD).</p>
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<p>PC-3</p>	<p>Able to prescribe treatment and monitor its efficacy and safety</p>	<p>PC-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.</p>
		<p>PC-3.2. Able to prescribe medicinal drugs, medical devices and medical nutrition taking into account the diagnosis, age and clinical picture of the disease and 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.</p>
		<p>PC-3.3. Being able to prescribe non-drug 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, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p>
		<p>PC-3.4. Being able to assess the efficacy and safety of the use of drugs, medical devices, medical nutrition and other treatment methods.</p>
		<p>PC-3.5. Being able to provide palliative care in collaboration with medical specialists and other healthcare professionals.</p>
		<p>PC-3.6. Being able to organize personalized treatment for a patient, including pregnant women, elderly and senile patients; assess the efficacy and safety of treatment.</p>
		<p></p>



### **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*
<b>GPC-5</b>	Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Biochemistry, Biology, Anatomy, Histology, embryology, cytology Normal physiology, Microbiology, Virology, Pathophysiology, Clinical Pathophysiology, Propaedeutics of Internal Diseases, General Surgery, Topographic anatomy and Operative surgery, Dermatovenerology, Neurology, Medical genetics, Neurosurgery, Ophthalmology, Forensic medicine, Faculty therapy, Faculty surgery.	Anesthesiology, resuscitation, intensive care, Hospital surgery, Pediatric surgery, Oncology, Radiation therapy, Maxillofacial surgery, Medical Elementology.
PC-2	Able to examine a patient in order to determine a diagnosis Able to prescribe treatment and monitor its efficacy and safety	Life safety, Immunology, Pathophysiology, clinical pathophysiology, Propaedeutics of internal diseases, Radiation diagnostics, General Surgery, Topographic anatomy and Operative surgery, Dermatovenerology, Neurology, medical genetics, neurosurgery Psychiatry, medical psychology, Otorhinolaryngology, Ophthalmology, Disaster Medicine, Faculty Therapy, Faculty Surgery, Urology.	Outpatient therapy, Anesthesiology, intensive care, Faculty surgery, Hospital surgery, pediatric surgery, Dentistry, Oncology, radiation therapy, Traumatology, orthopedics Pediatrics, Oral and maxillofacial surgery, The sectional course, Biotechnology, Medical Elementology, Allergology.

PC -3	Able to prescribe treatment and monitor its efficacy and safety	Life safety, Immunology, Pathophysiology, clinical pathophysiology, Propaedeutics of internal diseases, Radiation diagnostics, General Surgery, Topographic anatomy and Operative surgery, Dermatovenerology, Neurology, medical genetics, neurosurgery Psychiatry, medical psychology, Otorhinolaryngology, Ophthalmology, Disaster Medicine, Faculty Therapy, Faculty Surgery, Urology.	Outpatient therapy, Anesthesiology, intensive care, Faculty surgery, Hospital surgery, pediatric surgery, Dentistry, Oncology, radiation therapy, Traumatology, orthopedics Pediatrics, Oral and maxillofacial surgery, The sectional course, Biotechnology, Medical Elementology, Allergology.
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#### 4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course “Professional Diseases” is 2 credits (72 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	
<i>Contact academic hours</i>		<b>48</b>	<b>48</b>	
including:				
Lectures (LC)		-	-	
Lab work (LW)		<b>48</b>	<b>48</b>	
Seminars (workshops/tutorials) (S)		-	-	
<i>Self-studies</i>		24	24	
<i>Evaluation and assessment (exam/passing/failing grade)</i>		-	-	
<b>Course workload</b>		academic hours	<b>72</b>	
		credits	<b>2</b>	

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

## 5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

Modules and Topics	Content of the topics	Type of academic activities
<p><b>Module 1</b> Occupational diseases of respiratory system. Pneumoconiosis.</p>	<p><b>1.1</b> Introduction to the clinic of occupational diseases and its tasks. Issues of diagnostics and medical prevention. Principles of organization and conduct of medical examinations of workers of industrial enterprises, issues of examination of working capacity, medical examination. Pneumoconiosis, classification. Silicatoses, anthracosis, pneumoconiosis of electric welders, aluminosis, pneumoconiosis from exposure to plant dust. Berylliosis. Dust bronchitis. Professional bronchial asthma. Bronchoallergoses.</p>	LW
<p><b>Module 2</b> Vibration disease. Noise sickness (chronic occupational sensorineural hearing loss).</p>	<p><b>2.1.</b> Definition, etiology, pathogenesis. Clinical picture of diseases associated with exposure to local vibration and whole-body vibration. Stage of disease, diagnosis, treatment, prevention, prognosis.</p>	LW
<p><b>Module 3</b> Occupational diseases of the musculoskeletal system</p>	<p>Occupational diseases of the musculoskeletal system caused by physical overexertion and micro-traumas, workers of industrial enterprises and agricultural industry. Arthralgia, arthritis, polyarthritis, aseptic necrosis of bone, bursitis, tenosynovitis, dyskinesia, peri-arthritis of the shoulder joint, shoulder epicondylitis, professional polyneuritis and radiculitis.</p>	LW

Modules and Topics	Content of the topics	Type of academic activities
<b>Module 4</b> Domestic poisoning	Classification. Methods of diagnosis. Basic clinical syndromes. General principles of emergency treatment: prevention of further contact with the poison, its absorption, excretion of the poison from the body, antidotes, treatment of syndromes associated with intoxication. Acute carbon monoxide poisoning, amido and nitro compounds, alcohol, hypnotics and tranquilizers, acids and alkalis. Clinic, diagnosis, treatment, prevention. Intoxication by chemical substances used in the agricultural sector. Classification of pesticide due to the purposes of use, the chemical structure, ways of exposure. Acute and chronic chlorine and organophosphorus compounds poisoning, mercury organic compounds, arsenic-containing substances.	LW

## 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)
Lecture	An auditorium for conducting lecture-type classes, equipped with a set of specialized furniture; a board (screen) and technical means of multimedia presentations.	Classroom for lectures and seminars, group and individual consultations, ongoing monitoring and intermediate certification.  A set of specialized furniture; technical means: Laptops - Lenovo IdeaPad G7080, Asus K52JU; HP 6715s TL-60; Multimedia projectors - NEC, Epson EV-HOZ; Acer X113P; stable wireless Internet connection. Software: Microsoft products (OS, office suite, including MS

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
		Office/ Office 365, Teams, Skype)
Seminar	Auditorium for conducting seminar classes, group and individual consultations, ongoing monitoring and interim certification, equipped with a set of specialized furniture and multimedia presentation equipment.	Set of specialized furniture; technical means: Laptops - Lenovo IdeaPad G7080, Asus K52JU; HP 6715s TL-60; Multimedia projectors - NEC, Epson EV-HOZ; Acer X113P; stable wireless Internet connection. Software: Microsoft products (OS, office suite, including MS Office/ Office 365, Teams, Skype)
Self-studies	An auditorium for independent work of students (can be used for seminars and consultations), equipped with a set of specialized furniture and computers with access to EIOS.	

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

### *Main readings:*

1. Analysis of morbidity and the basis for maintaining the health of economically active groups of the population (workers of metallurgical enterprises) [Text/electronic re-source] : Educational and methodical manual / I.V. Pachgin, L.V. Maksimenko, D.I. Kicha. - Electronic text data. - Moscow: RUDN Publishing House, 2015. - 59 p. - ISBN 978-5-209-06799-3: 49.84.

<http://lib.rudn.ru/MegaPro2/Web/SearchResult/ToPage/1>

2. Occupational diseases [Electronic resource]: Textbook / Mukhin N.A. et al. - 2nd ed., reprint. and additional - M.: GEOTAR-Media, 2016.

<http://lib.rudn.ru/MegaPro2/Web/SearchResult/ToPage/1>

3. Occupational diseases [Electronic resource]: A guide for doctors / V.V. Kosarev, S.A. Babanov. - 3rd ed. (e-mail). - M.: BINOM. Laboratory of Knowledge, 2015. - 424 p. - ISBN 978-5-9963-3015-7.

<http://lib.rudn.ru/MegaPro2/Web/SearchResult/ToPage/1>

4. Izmerov, I. F. Occupational pathology : national guidelines / Edited by I. F. Izmerov. - Moscow: GEOTAR-Media, 2011. - 784 p. - ISBN 978-5-9704-1947-2. - Text: electronic // URL: <https://www.rosmedlib.ru/book/ISBN9785970419472.html> Additional reading:

*Additional readings:*

**Electronic full-text materials:**

1. Analysis of the morbidity of workers and examination of temporary disability at enterprises [Text/electronic resource]: Textbook / I.V. Pachgin, D.I. Kicha, L.V. Maksimenko. - Electronic text data. - Moscow: RUDN Publishing House, 2017. - 176 p. - ISBN 978-5-209-07689-6: 125.50.
2. Hygiene [Electronic resource] : textbook /V. I. Arkhangelsky [et al.] ; ed. Melnichenko P. I. - M. : GEOTAR-Media, 2014. - 656 p. : ill. – Access mode: <http://www.studentlibrary.ru/>
3. Arkhangelsk V. I. Hygiene and human ecology[Electronic resource] : textbook / V. I. Arkhangelsky, V. F. Kirillov. - M.: GEOTAR-Media, 2016. - 176 p. : ill. - Access mode: <http://www.studentlibrary.ru/>
4. Kiryushin V. A. Occupational hygiene [Electronic resource] : textbook / Kiryushin V. A., Bolshakov A.M., Motalova T. V. - M. : GEOTAR-Media, 2011. – Access mode: <http://www.studentlibrary.ru/>
5. Dvoretzky L. I. Interdisciplinary clinical tasks /L. I. Dvoretzky. - M.: GEOTAR-Media, 2012. - Access mode: <http://www.studentlibrary.ru/>
6. Pathological anatomy [Electronic resource] : textbook : in 2 t. t. 2 : Private pathology / edited by V.S. Paukov. - M. : GEOTAR-Media, 2016. - 528 p. : ill. - [http://www.studentlibrary.ru](http://www.studentlibrary.ru/)

**Printed publications:**

1. "Occupational hygiene" I. N. Fedorovich, K. V. Fedorovich GEOTAR-Media, 2010. Moscow
2. "Internal diseases" by Tinsley R. Harrison Classics of modern medicine, Moscow 2008
3. Differential diagnosis in the clinic of internal Diseases. V.A. Vinogradov, 2009
4. Occupational diseases - Artamonova V.G., Mukhin N.A. – Textbook, 2004
5. Marchenko D. V. Labor protection and prevention of occupational diseases [Text]: studies.manual / D. V. Marchenko. - Rostov n/A: Phoenix, 2008.
6. Razumov V. V. Clinical aspects in the expert work of a professional pathologist [Text] : [textbook.manual]/ V. V. Razumov, V. A. Zinchenko, E. B. Gurevich ; GBOU DPO Novokuzn. gos. in-t advanced training of doctors of the Ministry of Health of Russia. – Novokuznetsk : [Polygraphist], 2013. – 256, [2] S.
7. Kiryushin V. A. Occupational hygiene [Text] : manual.practice. classes : studies. manual for students on spec. 060104.65 "Medico-prophylactic. the case" by discipline "Occupational hygiene" / V. A. Kiryushin, A.M. Bolshakov, T. V. Motalova. - M. : GEOTAR-Media, 2011

*Resources of the Internet information and telecommunication network:*

1. EBS RUDN and third-party EBS, to which university students have access on the basis of concluded contracts:
  - Electronic library system of RUDN – EBS RUDN <http://lib.rudn.ru/MegaPro/Web>
  - EBS "University Library online" <http://www.biblioclub.ru>
  - ABS Yurayt <http://www.biblio-online.ru>

- EBS "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
  - EBS "Doe" <http://e.lanbook.com/>
  - EBS "Trinity Bridge"
2. Databases and search engines:
    - electronic fund of legal and regulatory and technical documentation <http://docs.cntd.ru/>
    - search engine Yandex <https://www.yandex.ru/>
    - Google search engine <https://www.google.ru/>
    - bibliographic database SCOPUS  
<http://www.elsevierscience.ru/products/scopus/>
  3. Association of Doctors and Specialists of Occupational Medicine <http://amt-oha.ru/fkr>
  4. Standards of medical care (website of the Ministry of Health of the Russian Federation):  
30  
<https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983>
  5. Website of the Moscow Branch of the Society of Evidence-based Medicine Specialists  
<http://www.osdm.msk.ru>
  6. Interregional Society of Evidence-based Medicine Specialists
  7. Website of the Chief freelance therapist of the Ministry of Health and Social Development of Russia, Director of the Federal State Institution "Scientific Research Institute of Pulmonology" of the FMBA of Russia Alexander Grigoryevich Chuchalin –  
<http://www.institute.pulmonology.ru>
  8. Russian Scientific Medical Society of Therapists - <http://www.rsmsim.ru/>
  9. Interregional Society of Evidence-based Medicine Specialists.  
<http://www.osdm.org/index.php>
  - 10 "Pubmed" - free full-text archive of biomedical and biological sciences journal of Literature of the American National Institute of the National Library of Health Medicine (NIH/NLM).  
<http://www.ncbi.nlm.nih.gov/pubmed>

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

1. The set of lectures on the course “Professional Diseases”

\* 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-1; GPC-5; GPC-10, PC-2, PC -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:**



MD Associate professor,  
Department of Hospital  
Therapy  
with courses of  
Endocrinology, Hematology  
and Clinical Laboratory  
Diagnostics

M.R. Aleksandrova

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position, department

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signature

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name and surname

Professor Assistant  
Hospital Therapy with  
Courses of  
Endocrinology,  
Hematology and CLD

O.I.Tarasova

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position, department

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signature

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name and surname

**HEAD OF EDUCATIONAL DEPARTMENT:**

Head of the Department of  
Hospital Therapy with  
Courses of Endocrinology,  
Hematology and CLD, MD  
Professor

N.D. Kislyi

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name of department

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signature

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name and surname

**HEAD  
OF HIGHER EDUCATION PROGRAMME:**

First Deputy Director of  
Medical Institute

Iv. V. Radysh

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position, department

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signature

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name and surname