

Federal State Autonomic Educational Institution of Higher Education  
«Peoples' Friendship University of Russia»

*Medical Institute*

Recommended MCSD

**SYLLABUS**  
(STUDY GUIDE)

**Subject**

**Occupational Diseases**

**Recommended for the direction of training (specialty)**

**31.05.01 General Medicine**

**Program (profile, specialization)**

**General medicine**

## 1. Purpose and objectives of discipline:

**The purpose** of the discipline "Occupational diseases" is to acquire students' 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.

**The objectives** of the discipline are:

1) Students acquire knowledge about the main occupational diseases and poisoning that are associated with the impact of the working environment, the basic principles of diagnosis, treatment and prevention.

2) Student education:

1. Make inquiries of the patient and his relatives: identify complaints, collect anamnesis of the disease and anamnesis of life.

2. Inspect and physical examination of the patient (percussion, palpation, auscultation), to identify the main symptoms and the main symptom complex.

3. A preliminary diagnosis and determine the list of diseases with similar symptoms and syndromes.

4. Outline the patient's data obtained during the examination in the form of medical history sections, to make a plan of the patient's examination.

5. Analyze the results of:

- Laboratory blood tests (general analysis, biochemical, immunological parameters captions antistreptokinase antibodies, rheumatoid factor, urine (general analysis by Nechiporenko, Zimnitsky, uric acid), sputum (general analysis on the flora), examination of fluid from cavities (pleural, pericardial, abdominal, joints);

- Endoscopic techniques (esophagogastroduodenoscopy, colonoscopy, bronchoscopy, arthroscopy, laparoscopy)

- Ultrasonic methods for studying the liver, biliary tract, pancreas, kidney and urinary tract, pleura and pleural cavity;

- pH measurement of the esophagus, stomach, and duodenum;

- ECG, Echocardiography

- Spirometry, peak flowmetry;

- X-ray, computed tomography (CT), scintigraphy, magnetic resonance imaging (MRI).

6. To diagnose major syndromes, define a list of diseases for which these data are common and to make the differential diagnosis based on obtained data.

7. To formulate clinical diagnosis after the differential diagnosis.

8. To make the patient's plan of treatment, rehabilitation and preventive measures in accordance with the nosological forms of occupational diseases.

9. To be able to make out-stage and discharge summaries.

10. To be able to solve the deontological problem related to the collection of information about the patient and diagnosis of symptoms and syndromes.

11. Be able to work independently with educational, scientific, regulatory and reference books - to search, read for solving problems.

## 2. The place of discipline in the structure of the educational programs

Discipline *Occupational diseases* is the main part of the block *Block 1* of curriculum.

Table 1 shows preceding and subsequent disciplines aimed at creating competencies of discipline in accordance with the competency matrix MP HE.

**Previous and subsequent discipline aimed at creating competencies**

№ п/п	Code and name of the competence	Previous discipline	Subsequent discipline
<b>General professional competence</b>			
1.	GPC-1		
2.	GPC -5	Biochemistry, Biology, Anatomy, Histology, embryology, cytology Normal physiology, Microbiology, Virology, Pathophysiology, Clinical Pathophysiology, Propaedeutics of Internal Diseases, General Surgery, Topographic anatomy and Operative surgery, Dermatovenereology, 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.
3.	GPC-10		
<b>Professional competence (Medical doctor (district general practitioner))</b>			
3.	PC-2, PC -3	Life safety, Immunology, Pathophysiology, clinical pathophysiology, Propaedeutics of internal diseases, Radiation diagnostics, General Surgery, Topographic anatomy and Operative surgery, Dermatovenereology, 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.

**3. Requirements to the results of the study subject:**

The process of studying the discipline directed to the formation of the following competencies:

Table № 2

General Professional Competence Category	General Professional Competence Code and Name	General Professional Competence Achievement Indicator Code and Name
Ethical and legal bases of professional activity	GPC-1. Being able to implement moral and legal norms, ethical and deontological principals in professional activity	GPC-1.1. Being able to abide by the ethical standards and legal regulations in professional activity.

		GPC-1.2. Being able to present professional information in the process of intercultural interaction observing the principles of ethics and deontology.
Etiology and pathogenesis	GPC-5. Being 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. Being able to evaluate the results of clinical, laboratory and functional diagnosis when dealing with professional tasks. GPC-5.3. Being able to determine morpho-functional, physiological states and pathological processes of the human body.
Information literacy	GPC-10. Being able to understand the operation principles of modern IT and use them to solve professional tasks	GPC-10.1. Being able to use information technology in professional activity. GPC-10.2. Being able to observe the information security rules in professional activity. GPC-10.3. Being able to use information and communication technologies, including applied software for general and special purposes in dealing with professional tasks.

Professional Competence Code and Name	Professional Competence Achievement Indicator Code and Name
PC-2 Being able to examine a patient in order to determine a diagnosis	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). PC-2.2. Being able to make a preliminary diagnosis and make up a plan of laboratory and instrumental examinations of a patient. PC-2.3. Being 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. PC-2.4. Being 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>PC-2.5. Being 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. Being 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. Being 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>
<p>PC-3 Being able to prescribe treatment and monitor its efficacy and safety</p>	<p>PC-3.1. Being 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. Being 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>

As a result of studying the discipline a student must:

**Know:** etiology, pathogenesis and prevention measures the most common diseases; modern classification of diseases; clinical, flow characteristics and potential complications of the most common diseases which occur in a typical form of various age groups; diagnostic methods, diagnostic methods

of direct examination of the therapeutic profile patient, modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic, radiologic techniques ultrasound diagnostics); criteria for the diagnosis of various diseases;

**Be able to:** to plan, to analyze and to evaluate the quality of care, health status and the impact of environmental factors on it and working environment; to determine the status of the patient: to collect anamnesis, conduct a survey of the patient and / or his relatives, a physical examination of the patient (inspection, palpation, auscultation, blood pressure measurement, determination of the properties of the arterial pulse, etc.); to assess the patient's condition to make a decision about medical attention; to conduct an initial survey of systems and organs: the nervous, endocrine, immune, respiratory, cardiovascular, blood and blood-forming organs, digestive, urinary, reproductive, musculoskeletal and joint, eye, ear, nose and throat; set priorities for addressing the patient's health: critical (terminal) state, a state with a pain syndrome, a condition with a chronic disease state with infectious disease, disability, geriatric problems, the state of the mentally ill;

to evaluate the social factors that affect the state of physical and mental health of the patient: cultural, ethnic, religious, personal, family, social risk factors (unemployment, violence, illness, and death of relatives and so on.); a preliminary diagnosis – to collect patient information in order to determine the causes of disease and causing it; outline the scope of further studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain reliable results;

formulate clinical diagnosis; to develop a plan of therapeutic (surgical) action, taking into account the course of the disease and its treatment;

to formulate the indications to favorites method of treatment based on etiologic and pathogenic agents, to justify drug therapy in individual patients with major pathological syndromes and emergency conditions, determine the route of administration, dose and regimen of drugs, to evaluate the efficacy and safety of the treatment;

to apply different methods of administration of drugs; a preliminary diagnosis - synthesize patient information in order to determine the causes of disease and causing it;

to outline the scope of further studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain reliable results; to use in medical activities methods of primary and secondary prevention (based on evidence-based medicine), to establish causal links changes in the health impact of environmental factors; to fill out a medical history, prescription;

**Manage:** correct medical records; methods of physical examination; interpretation of the results of laboratory and instrumental methods of diagnosis; algorithm of developed clinical diagnosis;

algorithm of initial diagnosis, followed by referral to an appropriate medical specialist;

general therapeutic diagnostic and therapeutic measures to provide first medical aid in emergency and life-threatening conditions, questions of the expertise of working capacity.

#### 4. Volume of discipline and Volume of training sessions

Volume of discipline is 2 credit unit (CU).

Classroom training (total)	Всего ча- сов	Semesters			
		9	10	11	12
<b>Classroom training (total)</b>	<b>48</b>	48			
Including:	-	-	-	-	-
<i>The lectures</i>					
<i>Practical (laboratory) sessions</i>		48			
<i>Seminars (S)</i>					

<i>Laboratory classes (LC)</i>					
Self-study (academic hours)	<b>24</b>	24			
<b>Total workload (academic hours)</b>	<b>72</b>				
<b>Total workload (credit units)</b>	<b>2</b>				

## 5. The contents of the discipline

### 5.1. The content of sections discipline

№	Name of section discipline	Contents
1.	Occupational diseases Pneumoconiosis.	Pneumoconiosis. Classification. Silicosis: etiology, pathogenesis, clinical presentation, diagnosis, course and complications, treatment, prevention. Silicotuberculosis. Pathogenesis, clinical variants, diagnosis, treatment, prevention, outcome, VTE. Silicatosi, anthracosis, pneumoconiose of electric welder, aluminosis, pneumoconiose from exposure to plant dust. Berylliosis. Pathogenesis, clinical diagnosis and treatment. Bronchitis. Occupational asthma. Bronchoal allergy. Etiology, pathogenesis. Features of clinic and diagnostics. The establishment of a professional nature of the disease, treatment, prevention, prognosis.
2.	Vibration disease.	Definition, etiology, pathogenesis. Clinical picture of diseases associated with exposure to local vibration and whole-body vibration. Stage of disease, diagnosis, treatment, prevention, prognosis.
3.	Occupational diseases of the musculoskeletal system	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, periarthriti of the shoulder joint, shoulder epicondylitis, professional polyneuritis and radiculitis. Pathogenesis, clinical presentation, diagnosis, treatment, prognosis, prevention.
4.	Poisoning in the home. 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. Pathogenesis, clinical features, diagnosis, prognosis, treatment, prevention.

(Contents indicated didactic units. At the discretion of the material can be provided to developers not tabular).

## 5.2 Sections discipline and types of classes

№	Name of providing disciplines	L	PC	LR	S	Ssgw	Total hours
		1.	Occupational diseases Pneumoconiosis.		12		
2.	Vibration disease.		12			6	18
3.	Occupational diseases of the musculoskeletal system		12			6	18
4.	Poisoning in the home. Domestic poisoning		12			6	18

## 6. Laboratory workshop

№	№ of discipline section	Labs name	Laboriousness (hour.)
1.			
2.			
...			

## 7. Practical training (workshops)

№	№ number of section	Workshop topics	work-load
1.	Occupational pathology of the respiratory system. Pneumoconiosis.	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. Silicosis: etiology, pathogenesis, clinical presentation, diagnosis, course and complications, treatment, prevention. Silicotuberculosis. Pathogenesis, clinical variants, diagnosis, treatment, prevention, outcome, VTE. Silicatosis, anthracosis, pneumoconiose of electric welder, aluminosis, pneumoconiose from exposure to plant dust. Berylliosis. Pathogenesis, clinical diagnosis and treatment. Bronchitis. Occupational asthma. Bronhoallergozy. Etiology, pathogenesis. Features of clinic and diagnostics. The establishment of a professional nature of the disease, treatment, prevention, prognosis.	12



2.	Vibration disease. Noise sickness (chronic occupational sensorineural hearing loss).	Definition, etiology, pathogenesis. Clinical picture of diseases associated with exposure to local vibration and whole-body vibration. Stage of disease, diagnosis, treatment, prevention, prognosis.	12
3.	Occupational diseases of the musculoskeletal system	Occupational diseases of the musculoskeletal system caused by physical stress and micro-traumas, workers of industrial enterprises and pre-farming industries. Arthralgia, arthritis, polyarthritis, aseptic necrosis of bone, bursitis, tenosynovitis, dyskinesia, peri-arthritis of the shoulder joint, shoulder epicondylitis, professional polyneuritis and radiculitis. Pathogenesis, clinical presentation, diagnosis, treatment, prognosis, prevention.	12
4.	Poisoning in the home.	Poisoning in the home. Classification. Methods of diagnosis. Basic clinical syndromes. General principles of emergency treatment: pre-warning of further contact with the poison of the 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 application, the chemical structure, ways of exposure. Acute and chronic chlorine and organophosphorus compounds poisoning, mercury organic compounds, arsenic-containing substances. Pathogenesis, clinical features, diagnosis, prognosis, treatment, prevention.	12

### 8. Material and technical support of the discipline:

1. The system of daily monitoring of blood pressure " Don ";
2. Electrocardiograph "CARDIOVIT AT-101,"supplied with accessories, truck;
3. The complex of equipment with electronic memory "KAMA Medic" KAMA Medic set for 1 patient for daily ECG monitoring;
4. Pulse Oximeter 503 DX MINISPO2T;
5. SpiroAnalyzer Eton;
6. Device for non-invasive determination of the degree of liver fibrosis FibroScan 502 TOUCH with an ultrasound sensor, with accessories;
7. Portable ultrasonic scanner " ANGIODIN-SONO/P»;
8. Bioimpedance analyzer of body composition ABC-02 " MEDASS»;
9. Express analyzer (glucometer) portable " Accu-Check Performa";
10. General purpose negatoscope "Armed" version: 1-frame;
11. Medical scales;
12. Metal medical height meters R-St - "MSK";
13. Tonometers complete with phonendoscopes;
14. Direct microscope "BiOptic" V-200 Trino with a 3 Mp digital camera and specialized software;
15. AVerVision 300AF Document camera;

16. Laptops-Lenovo IdeaPad G7080, Asus K52JU; HP 6715s TL-60;
17. Multimedia projectors-NEC, Epson EV-HOZ; Acer X113R;
18. Western Digital Essential Drive WDBFBW0020BBK;
19. Canon Copier;
20. Canon Scanner;
21. Laser MFPs HP.
22. Cisco Wi-Fi Wireless Access Points;
23. TP-Link TL-SF1008P 8xLAN PoE switches.
24. Study tables with chairs.

## **9. Informational provision of the discipline:**

a) software:

1. Office Pro Plus 2016 Desktop ALNG LilcSAPk MVL A Faculty EES-Registration number-90-07-012-00604-5; Work order for the installation of software No. 2696 dated 19.09.2017.
2. Office Pro Plus 2013 Desktop Education ALNG LilcSAPk MVL A Faculty EES-Registration number-90-07-012-00602-2; Work order for the installation of software No. 2584 dated 18.05.2016.
3. Windows 10 Education Desktop Education ALNG LilcSAPk MVL A Faculty EES-Registration Number-90-07-01-00599-8; Work order for the installation of software No. 2695 dated 19.09.2017.
4. Windows 8.1 Desktop Education ALNG LilcSAPk MVL A Faculty EES-Registration Number-90-07-01-00600-1; Work order for the installation of software No. 2581 dated 18.05.2016.

b) resources of the information and telecommunications network " Internet»:

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>
- ELS "University Library online" <http://www.biblioclub.ru>
- ELS Yurayt <http://www.biblio-online.ru>
- ELS "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
- ELS " Doe " <http://e.lanbook.com/>

2. Databases and search engines:

- electronic Fund of legal and normative-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/>
- WHO Documentation Center <http://whodc.mednet.ru/>

## **10. Training and methodological support disciplines:(specify the availability of printed and electronic educational and media resources)a) primary literature**

a) primary literature:

1. Analysis of morbidity and the basis for maintaining the health of economically active groups of the population (employees of metallurgical enterprises) [Text/electronic resource] : Educational and methodological 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. Professional 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. Professional pathology. National leadership. Ed. IF Izmerova, 2011. -784p. <https://www.rosmedlib.ru/book/ISBN9785970419472.html>
  4. Occupational diseases. Textbook + CD NA Mukhin, V.V.Kosarev, SA Babanov, VV Fomin M. : Binom, 2015 - Moscow - 424 p. : . - ISBN 978-5-9963-3015 -7. <http://lib.rudn.ru/MegaPro2/Web/SearchResult/ToPage/1>
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b) further reading:

1. Analysis of the morbidity of workers and examination of temporary disability in 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. "Occupational health" I. Fedorovich, KV Fedorovich. GEOTAR Media, 2010. Moscow
3. "Internal Medicine" by Tinsley R. Harrison Classic Modern Medicine, Moscow, 2008.
4. Differential diagnosis in the clinic of internal diseases. VA Vinogradov, 2009
5. Occupational disease - Artamonova VG, Mukhin NA - Tutorial 2004

### **11. Methodical recommendations for students mastering the discipline (module):**

Students are required to attend classes, perform teacher assignments, knowing the recommended study material.

During practical classes held in the classrooms related topics are discussed with the use of multimedia equipment (computer, projector). Individual work during extracurricular hours can take place both in the classroom and the computer lab of the department, where students can study the material of the presentations prepared by teachers of the department, as well as computer-based test. Presentations on study topics can be recorded on a CD or flash card for individual work of students on a home computer. Teaching materials in electronic form of a number of topics studied are placed on the pages of the Department and the staff of the Department of Hospital Therapy in the TUIS People's Friendship University, as well as on local resources of electronically library system of RUDN. Recordings of classes are displayed in TUIS.

As a form of self-study work it is considered to perform summaries on various sections of the course curriculum, as well as the presentation of the reports at the seminar.

Extracurricular individual work includes: to study material for textbooks, manuals on paper and electronic carriers; preparation of posts abstracts or presentations on the chosen topic; practice to perform tests and test tasks.

#### **Requirements for writing and design of the report/abstract**

This form of control is considered as independent research work. It is unacceptable to simply copy text from books, articles, or download an accomplished work from the Internet.

The abstract has a definite structure: a title page, contents, introduction, chapters of the main part, conclusion, references.

Abstract volume - at least 15 pages. Pages of the abstract, except the title page should be numbered. The text of the abstract is printed 14 font with 1.5 line spacing. The fields: left - 3 cm, right - 1 cm, on the top - 2 cm, below - 2.5 cm. The text is printed with paragraphs. Headings and subheadings are separated from the main text on top and bottom with three intervals space.

At the title page should be specified institution, faculty, department, topics of the abstracts, the student's name, group number, name of the lecturer.

Introduction takes 1-1.5 pages and brings readers up to date on the issue. In the introduction, it is necessary to formulate the objective of the work, necessarily presence of the relevance, in which must be justified the choice of this theme.

In the main part should be given a meaningful description of the problem. The main body of text should be divided into several sections (not less than three and no more than five) have references of literature. The abstract should be prepared on the basis of the research materials that are relevant for today (for the last 10 years).

In conclusion, it should be formulated findings that reflect the main results of the work. References should be in alphabetical order of the names of authors and titles of works (in the absence of the author's name). In references common enumeration of literature's sources should be used. When writing an essay, it is recommended to refer to the latest scientific sources. The arrangement of the original source of the data shall contain the surname and initials of the author, title, place of publication, publisher, year of publication, number of pages.

### **Requirements for presentation**

1. The presentation is an individual work and is used as visual aid and visual series.
2. Requirements for the multimedia presentation:
  - 1) the content of the presentation should deliver didactic aims and objectives;
  - 2) adherence to accepted rules of spelling, punctuation, abbreviations and text formatting rules (no points in the headlines, and so on)
  - 3) absence of factual errors, the accuracy of the information provided;
  - 4) brevity of the text on the slide;
  - 5) completeness (the contents of each of the textual information is logically completed);
  - 6) combine semantically related information elements in the perceived holistically group
  - 7) compactness and brevity, maximum informativeness of text
  - 8) location information on the slide (preferably horizontal location information, from top to bottom along the main diagonal; the most important information should be placed in the center of the screen, if it is a picture on the slide, the inscription should be placed under it; it is desirable to fit the text to the width; avoid "ragged" edges of text );
  - 9) Text slides compose no more than 30% of the presentations, the remaining slides are presented in the form of graphics (graphs, charts, tables, etc.).
  - 10) information should be presented in attractive, original way, draw the attention of students.
3. Requirements for visual and audio series:
  - 1) Use only the optimized image (for example, reduction by using Microsoft Office Picture Manager, compression using Microsoft Office picture settings panel);
  - 2) images should match the content
  - 3) images should match the age of students
  - 4) image quality (contrast of the image relative to the background, the absence of "extra" parts on the photograph or the picture ,brightness and contrast of the image, the same file format);
  - 5) reasonableness and rationality of the use of graphic objects;
4. Requirements to the text:
  - 1) readability of text on the background of the presentation slides (text clearly visible against the background of a slide, use contrasting colors for the background and text);
  - 2) font size corresponds to the age of students and must be at least 24 points;
  - 3) line length should not exceed 36 characters;
  - 4) the distance between lines within a paragraph 1.5, and between paragraphs - 2 intervals;
5. Requirements for effective use of presentation:
  - 1) Take into account CanPiN requirements for the use of technical equipment (the duration of the continuous viewing of presentation - no more than 20 minutes);
  - 2) creative, original approach to creating presentations.
6. The presentation should not be boring, monotonous, cumbersome (optimum is 15-20 slides).
7. On the title slide should be specified information about the author (full name and the name of the EI), the name of the material, the date of creation. It is possible to use headers and footers. Other placement of information about the author is acceptable in the case if it interferes with the perception of the material on the title slide.

8. On the last slide should be enumeration of sources used, active and precise references for all graphical objects. On the final slide, you can once again provide information about the author of the presentation (slide number 1) with photo and contact information about the author (e-mail, phone).

9. Multimedia presentation with methodological support and applications should be loaded in single zipped file.

*(Recommended modules within the discipline or interdisciplinary modules, educational technology, as well as assessment tools to monitor progress and interim attestation are indicated)*

12. **Score rating system** for the intermediate attestation of students in the discipline "Hospital therapy".

Materials for assessing the level of development of educational material of the discipline "Occupational Diseases" including a list of competencies indicating the stages of their formation, a description of indicators and criteria for evaluating competencies at various stages of their formation, a description of assessment scales, standard control tasks, situational tasks necessary for assessing knowledge, skills, skills and experience of activities that characterize the stages of competence formation in the process of mastering the educational program; methodological materials that define the procedures for evaluating knowledge, skills, skills and experience of activities that characterize the stages of competence formation, are developed in full and are available to students on the page of the discipline in the TUIS RUDN.

The program is compiled in accordance with the requirements of the FSES HE.

**Developers:**

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

M.R. Aleksandrova

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

O.I. Tarasova

Head of Department  
Department of Hospital Therapy  
with courses of Endocrinology, Hematology  
and Clinical Laboratory Diagnostics  
Professor

N.D. Kisliy

**Head of the program**

**I. V. Radysh**