

**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION,  
MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATION  
OF THE KYRGYZ REPUBLIC**

Kyrgyz-Russian Slavic University  
named after the first President of the Russian Federation B.N. Yeltsin



## Occupational diseases

### Work program of the discipline (module)

Assigned to the	<b>Therapies No1 (Pediatrics and Dentistry)</b>	
Curriculum	310501_21_45 ld in.plx Specialization 31.05.01. - Russian Federation, 560001 - General Medicine of the Kyrgyz Republic	
Qualification	<b>Doctor</b>	
Form of study	<b>Full-time work week</b>	
Total labor intensity	<b>2 ZET</b>	
Hours according to the including:	72	Types of control in semesters: Score 8
Classroom activities	32	
Independent work	39,7	

#### Distribution of hours of the discipline by semesters

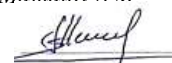
Semester (<Course>.<semester>)	8 (4.2)		Total	
	17			
Class Type	TOP	RP	TOP	RP
Lecture	8	8	8	8
Practical	24	24	24	24
Contact work during the period of theoretical training	0,3	0,3	0,3	0,3
Including intelligence.	4	4	4	4
Full place.	32	32	32	32
Contact work	32,3	32,3	32,3	32,3
Himself. work	39,7	39,7	39,7	39,7
<b>Total</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>72</b>

The program was compiled by:  
*Senior Lecturer Uvaidillaeva F.T.*

Reviewer(s):

*Doctor of Medical Sciences, Professor, Head of the Department of Hospital Therapy with a Course of Hematology of the KSMA, Mamatov S M*

*Candidate of Medical Sciences, Associate Professor of the Department of Therapy2 of the LD specialty, Dzhalobaeva K.A.*



The program of the discipline

developed in accordance with the Federal State Educational Standard 3++:

Federal State Educational Standard of Higher Education – Specialist in the specialty 31.05.01

"General Medicine" (Order of the Ministry of Education and Science of the Russian Federation dated 12.08.2020 No 988)

Compiled on the basis of the curriculum:

Specialization 31.05.01. - Russian Federation, 560001 - General Medicine of the Kyrgyz Republic  
(for international students)

approved by the Academic Council of the University on June 30, Protocol No 13

The work program was approved at the meeting of the Department

Minutes dated 29.08.2025 No 1

Duration of the program: 2025-2030 academic year.

Head of the Department, *Candidate of Medical Sciences, Associate Professor Suranova G. Zh.* \_\_\_\_\_

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**Approval of RPD for Execution in the Next School Year**

Chairman of the International Council

\_\_ \_\_\_\_\_ 2026

The programme of work was revised, discussed and adopted  
in the 2026-2027 academic year, at the meeting of the Department

Minutes from \_\_ \_\_\_\_\_ 2026 No \_\_  
Head. Department

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**Approval of RPD for Execution in the Next School Year**

Chairman of the International Council

\_\_ \_\_\_\_\_ 2027

The programme of work was revised, discussed and adopted  
in the 2027-2028 academic year, at the meeting of the Department

Minutes from \_\_ \_\_\_\_\_ 2027 No \_\_  
Head. Department

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**Approval of RPD for Execution in the Next School Year**

Chairman of the International Council

\_\_ \_\_\_\_\_ 2028

The programme of work was revised, discussed and adopted  
In the 2028-2029 academic year, at the meeting of the department

Minutes from \_\_ \_\_\_\_\_ 2028 No \_\_  
Head. Department

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**Approval of RPD for Execution in the Next School Year**

Chairman of the International Council

\_\_ \_\_\_\_\_ 2029

The programme of work was revised, discussed and adopted  
in the 2029-2030 academic year, at the meeting of the Department

Minutes from \_\_ \_\_\_\_\_ 2029 No \_\_  
Head. Department

### 1. GOALS OF MASTERING THE DISCIPLINE

1.1	The purpose of the discipline "Occupational Diseases" is to form students' systematic knowledge about the causes, mechanisms of development, clinical manifestations and prevention of occupational diseases, to teach them to recognize harmful factors of production and their impact on the body, to master the diagnosis and differential diagnosis of occupational pathology, the principles of treatment, rehabilitation and expertise to develop skills in occupational risk analysis, the application of health and hygiene legislation and interdisciplinary cooperation, as well as to develop professional responsibility for the preservation of the health of the worker.
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### 2. THE PLACE OF THE DISCIPLINE IN THE STRUCTURE OF THE EDUCATIONAL PROGRAM

Cycle (section) of the PLO:		B1. O
<b>2.1</b>	<b>Requirements for the student's preliminary training:</b>	
2.1.1	Anatomy	
2.1.2	Pathological anatomy	
2.1.3	Promotion of internal diseases	
2.1.4	Normal physiology	
<b>2.2</b>	<b>Disciplines and practices for which the development of this discipline (module) is necessary as a precedence:</b>	
2.2.1	Infectious diseases	
2.2.2	Immunoprophylaxis of infectious diseases	
2.2.3	Hospital Surgery	
2.2.4	Hospital Therapy	
2.2.5	Family Medicine	
2.2.6	Oncology, radiation therapy	
2.2.7	Phthisiology	
2.2.8	Teaching Therapy	

### 3. STUDENT'S COMPETENCIES FORMED AS A RESULT OF MASTERING THE DISCIPLINE (MODULE)

#### OPK-5: Ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems

<b>To know:</b>	
Level 1	<ul style="list-style-type: none"> <li>- Basic morphofunctional, physiological conditions and pathological processes in the human body;</li> <li>- Specificity of the main morphofunctional, physiological states, pathological processes of the human body in comparison;</li> <li>- The main methods of differentiation and inference based on the results of the assessment of morphofunctional, physiological processes and pathological conditions of the patient.</li> </ul>
Level 2	<ul style="list-style-type: none"> <li>- To reveal the meaning of the main morphofunctional, physiological states and pathological processes in the human body;</li> <li>- Comparison of various morphofunctional, physiological conditions and pathological processes of the human body</li> <li>- To note the practical value of specific morphofunctional, physiological processes and pathological conditions of the human body.</li> </ul>
<b>Can:</b>	
Level 1	<ul style="list-style-type: none"> <li>- To reveal the meaning of the main morpho-functional, physiological states and pathological processes in the human body;</li> </ul>
Level 2	<ul style="list-style-type: none"> <li>- Comparison of various morphofunctional, physiological conditions and pathological processes of the human body</li> </ul>
Level 3	<ul style="list-style-type: none"> <li>- To note the practical value of specific morphofunctional, physiological processes and pathological conditions of the human body.</li> </ul>
<b>Possess:</b>	
Level 1	<ul style="list-style-type: none"> <li>- Skills in determining the main morphofunctional, physiological states and pathological processes in the human body;</li> </ul>
Level 2	<ul style="list-style-type: none"> <li>- Skills of assessment, differentiation of the main morphofunctional, physiological and pathological states of the human body and their own justification.</li> </ul>
Level 3	<ul style="list-style-type: none"> <li>- Methods for searching and comparing various morphofunctional, physiological states and pathological processes of the human body;</li> </ul>

<b>OPK-7: Able to prescribe treatment and monitor its efficacy and safety</b>	
<b>To know:</b>	
Level 1	- Rules for conducting an examination of temporary disability, participation in medical and social examinations in order to establish the biological death of a person.
Level 2	- Expert assessment of temporary disability before biological death.

<b>PC-4: Ready to collect and analyze complaints, medical history, examination results, laboratory, instrumental, pathoanatomical and other examinations in order to identify the condition or establish the presence or absence of a disease</b>	
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<b>To know:</b>	
Level 1	methods and means of collecting and analyzing the patient's complaints, his/her medical history, indications and contraindications for
Level 2	- the need to collect and analyze the patient's complaints, his medical history; - etiopathogenesis, clinical picture and diagnosis of the main diseases;
Level 3	- indications and contraindications for additional clinical and paraclinical research methods . - Indications and contraindications for the selection of additional clinical and paraclinical methods of research;

<b>Can:</b>	
Level 1	Collect and analyze patient complaints, medical history.
Level 2	- prescribe laboratory, instrumental, pathological and other examinations in order to identify the condition or establish the fact of the presence or absence of the disease.
Level 3	- interviewing, collecting complaints and anamnesis from the patient; - to develop a pedigree model for families with hereditary diseases; - Conduct a study of the clinical condition; - determine indications and contraindications for the selection of additional clinical and paraclinical research methods; - use methods and means of medical examination, diagnostic measures.

<b>Possess:</b>	
Level 1	- skills in collecting and analyzing patient complaints, medical history, interpreting the results of the most common methods of functional diagnostics used to detect pathologies of the blood, heart and blood vessels, lungs, kidneys, liver and other organs and systems;
Level 2	- skills in compiling a medical history, skills of the necessary laboratory and instrumental examination to identify the condition or establish the fact of the presence or absence of a disease;
Level 3	- skills in examining patients, carrying out the necessary diagnostic measures; - skills in making a clinical diagnosis.

<b>PC-5: Able to identify major pathological conditions, symptoms, disease syndromes, nosological forms in patients according to the International Statistical Classification of Diseases and Related Health Problems, X edition.</b>	
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<b>To know:</b>	
Level 1	Methods of conducting research in order to identify the main pathological conditions, symptoms, disease syndromes, nosological forms.
Level 2	- Specifics of identifying various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the edition of ICD X.
Level 3	- The main syndromes of organ and system damage and their specificity in the differential diagnosis of various nosological forms in accordance with the ICD X revision.

<b>Can:</b>	
Level 1	- To comprehend the results of the study of the main nosological forms of diseases;
Level 2	- Analyze various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the ICD

Level 3	- To note the practical value when comparing specific pathological syndromes, symptoms of diseases.
<b>Possess:</b>	
Level 1	- Skills to identify major pathological conditions, Symptoms, syndromes of diseases.
Level 2	- Methods of search, identification and systematization of the main pathological conditions, symptoms of disease syndromes, nosological forms in accordance with the ICD X edition
Level 3	- Skills of one's own justification of the association various symptoms and syndromes turn into nosological forms in accordance with (revision of ICD X).

**PC-7: Ability to determine management tactics for patients with different nosological forms**

<b>To know:</b>	
Level 1	- Etiology, pathogenesis, clinical manifestations of diseases.
Level 2	- Main types and methods of treatment of patients with various nosological forms.
Level 3	- the main directions and problems in the management of patients with various diseases.
<b>Can:</b>	
Level 1	- To identify the meaning of determining the tactics of managing patients with various diseases.
Level 2	- Compare different types and methods of treatment of patients with different nosological forms, develop a treatment plan for diseases.
Level 3	- To note the practical value of individual tactics for the management of patients with various nosological forms.
<b>Possess:</b>	
Level 1	- Skills in presenting and analyzing the etiology, pathogenesis of various clinical diseases to make a diagnosis.
Level 2	- Have the skills to determine the tactics of managing patients with diseases.
Level 3	- Methods for searching and comparing various methods of treatment for patients with different nosological forms.

**PC-8: Ready to manage and treat patients with various nosological forms on an outpatient and day hospital basis**

<b>To know:</b>	
Level 1	- Etiology, pathogenesis, clinical manifestations of the main diseases with various nosological forms.
Level 2	- Main types and methods of treatment of patients with various nosological forms.
Level 3	- Methods of management and treatment of patients with various Nosological forms, both outpatient and day hospital
<b>Can:</b>	
Level 1	- Correctly identify this disease.
Level 2	- Compare different types and methods of treatment of patients with different nosological forms, develop a treatment plan for diseases.
Level 3	- Management and treatment of patients on an outpatient basis and in a day hospital.
<b>Possess:</b>	
Level 1	- Skills in analyzing various types of treatment of patients with various nosological forms.
Level 2	- Methods for searching and comparing various methods of treatment for patients with different nosological forms.
Level 3	- Skills in managing and treating patients with various diseases both on an outpatient basis and in a day hospital.

**PC-9: Ready to provide primary health care for sudden acute illnesses, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care**

<b>To know:</b>	
Level 1	- Clinical manifestations of acute and chronic diseases.
Level 2	- Methods of treatment and medical manipulation of pathological conditions and diseases.

Level 3	- General principles of treatment. - Diseases, taking into account their etiology and pathogenesis; - Knowledge of pharmacological groups and their interaction with each other.
<b>Can:</b>	
Level 1	- Link symptoms, exam results, and metrics Laboratory and instrumental research methods are combined into a single whole and establish the correct diagnosis.
Level 2	- Prepare the patient, instruments and medications for the necessary manipulations.
Level 3	- Assess the stage of the disease and prescribe therapy, the corresponding stage of the disease
<b>Possess:</b>	
Level 1	- Skills to recognize signs of acute illness or exacerbation of a chronic disease.
Level 2	- Skills and methods of providing medical care for acute and chronic diseases.
Level 3	- Skills in etiological and pathogenetic therapy in the treatment of diseases depending on the severity of the disease on an outpatient basis.

#### PC-14: Capable of keeping medical records.

<b>To know:</b>	
Level 1	- List and characteristics of accounting and reporting medical documentation in medical organizations with a medical profile;
Level 2	- Regulatory documentation adopted in healthcare, as well as documentation for assessing the quality and effectiveness of medical organizations.
<b>Can:</b>	
Level 1	- Conducting medical and statistical analysis of health indicators of the attached population;
Level 2	- Maintain medical records, including electronic records.
<b>Possess:</b>	
Level 1	- Skills in comparative characterization of medicine Documentation of various types in medical institutions
Level 2	- Working skills and methods of maintaining accounting and reporting records of various nature in medical institutions;

#### As a result of mastering the discipline, the student is obliged to

<b>3.1</b>	<b>To know:</b>
3.1.1	- Etiology, pathogenesis, clinical picture of the most common forms of occupational diseases
3.1.2	- Features of the diagnosis of occupational diseases
3.1.3	- Differential diagnosis between occupational and non-occupational diseases with a similar clinical picture
3.1.4	- Deontological norms, ethics of the doctor in the process of patient supervision
3.1.5	- Issues of treatment, prevention, assessment of working capacity, medical and labor rehabilitation of occupational diseases.
3.1.6	- Know the principles of organization and provision of emergency medical care for acute occupational diseases (poisoning)
<b>3.2</b>	<b>Can:</b>
3.2.1	- Analysis of the patient's professional history data to determine the possible impact of factors on the state of health
3.2.2	- Ability to conduct preliminary and periodic medical examinations of employees
3.2.3	- To analyze the mechanisms of action of unfavorable factors of the working environment that caused the development of occupational diseases
3.2.4	- Conducting a targeted examination of patients in order to identify clinical signs indicating the influence of adverse factors in the working environment
3.2.5	- To carry out a differential diagnosis between suspected occupational and non-occupational diseases that have a similar clinical picture
3.2.6	- Identify specific signs of the transition of this occupational disease
3.2.7	- To determine the degree and stability of functional disorders of the affected organs and systems

3.2.8	- Correctly recommend the necessary therapeutic measures for patients with occupational diseases
3.2.9	- Provide emergency medical care for acute occupational diseases (poisoning)
3.2.10	- Based on the clinical picture, degree of functional disorders, working conditions, profession of the patient to determine his ability to work and employment.
<b>3.3</b>	<b>Possess:</b>
3.3.1	- skills in clinical examination, diagnosis and treatment of patients with occupational diseases, rehabilitation and preventive measures, including preliminary and periodic medical examinations, mechanisms and localization of action and the possibility of substitution with drugs from other groups;
3.3.2	- Skills in analysing and using workplace hygiene data to confirm the link between illness and patient working conditions;
3.3.3	- skills in determining the degree of disability in occupational diseases and intoxications,
3.3.4	selection of rational types of work for able-bodied patients whose opportunities to work are limited;
3.3.5	- skills in filling out the patient's VTEC examination report with the justification of the expert opinion;
3.3.6	- skills in conducting a targeted examination of employees of industrial enterprises, agriculture, transport and construction in order to identify their occupational disease.

#### 4. STRUCTURE AND CONTENT OF THE DISCIPLINE (MODULE)

Lesson code	Titles of sections and topics/type of lesson/	Semester / Course	Hours	Competence In the 19th	Literature	Inté Rakt.	Ave. PODG.	Note
	<b>Section 1. The subject of occupational pathology. Dust Diseases</b>				L1.1 L1.2 L1.3 L1.4 L1.5			
1.1	Introduction to the Clinic Occupational diseases and her tasks /Lek/	8	2		L1.1 L1.2 L1.3 L1.4 L1.5			
1.2	Acquaintance with the clinic of occupational diseases, features of supervision, examinations Patients with occupational diseases . Patient observation. Acquaintance with medical care for employees. Preliminary and periodic medical examinations of employees. Issues of assessment of working capacity and	8	4		L1.1 L1.2 L1.3 L1.4 L1.5			
1.3	Lung diseases. Pneumoconiosis /Lek/	8	2		L1.1 L1.2 L1.3 L1.4			
1.4	Pneumoconioses of dust. Silicosis. Silicotuberculosis. Silicisiderosis. Silixsilicatosi. Pneumoconiosis due to weakly fibrogenic dust. Anthracosis. Asbestosis. Electric welding machines pneumohorses /Pr/	8	4		L1.1 L1.2 L1.3 L1.4 L1.5	2		
1.5	Pneumoconioses from aerosols Allergic toxicotoxin. Berylliosis. Farmer's lung. Dust bronchitis. Occupational bronchial asthma /Pr/	8	4		L1.1 L1.2 L1.3 L1.4 L1.5	2		

1.6	<p>1. Influence of new factors of the production environment on Condition of workers.</p> <p>2. Modern ideas about Pathogenesis of pneumoconiosis.</p> <p>3. Organization and conduct of preliminary and periodic examinations of people working in conditions of exposure to dust.</p> <p>4. Etiology criteria Diagnosis of dust bronchitis.</p> <p>5. Differential diagnosis Asbestosis with other diseases.</p> <p>6. Differential Diagnosis of lead intoxication.</p> <p>7. The effect of benzene and its Homologues for each body women and children.</p> <p>8. Historical aspects study of occupational diseases.</p> <p>9. Etiopathogenesis, clinical picture and treatment of chronic mercury Intoxication /Wed/</p>	8	21,7		L1.1 L1.2 L1.3 L1.4 L1.5			
	<b>Section 2. Occupational diseases caused by the impact of physical factors. Occupational diseases caused by exposure to toxicochemical factors.</b>							
2.1	Vibration Sickness /Lek/	8	2		L1.1 L1.2			
2.2	Occupational diseases of the musculoskeletal system /PR/	8	4		L1.1 L1.2 L1.3 L1.4			
2.3	Lead intoxication and its Compounds /Lek/	8	2		L1.1 L1.2 L1.3 L1.4			
2.4	Intoxication with lead and its compounds, mercury and its Compounds, aromatic Hydrocarbons /Pr/	8	4		L1.1 L1.2 L1.3 L1.4 L1.5			
2.5	Intoxication with irritating substances. Occupational intoxications Basic principles Diagnostics and emergency medical care Assistance in an acute professional situation Intoxication /Pr/	8	4		L1.1 L1.2 L1.3 L1.4 L1.5			

2.6	1. Modern idea Pathogenesis of oscillatory illness. 2. Differential diagnosis of occupational vibration diseases. 3. Intoxication with irritating substances. 4. Professional intoxication Pesticides. 5. Basic principles of diagnosis in acute occupational disorder Intoxication. 6. Basic principles of emergency medical care for acute professional intoxication.	8	18		L1.1 L1.2 L1.3 L1.4 L1.5			
2.7	Submission and defense of medical history	8	0,3					

## 5. VALUATION TOOLS FUND

### 5.1. Issues and tasks of management

Questions to check the level of knowledge of KNOWLEDGE:

1. The main types of labor activity and duties of the foreman.
2. On the basis of what documents are preliminary and periodic medical examinations of employees subjected to harmful and unfavorable working conditions mandatory? Summary of annexes to this document.
3. Which diseases are occupational and which are occupational injuries?
4. Documentation necessary to resolve the issue of the relationship between the disease and the work performed (occupational disease).
7. Which medical and preventive institutions have the right to initially diagnose chronic and acute occupational diseases (intoxication)?
8. The purpose of preliminary (upon employment) and periodic medical examinations.
9. What directive documents (name and content) should be observed when organizing and conducting preventive medical examinations of employees exposed to harmful factors of the working environment?
10. What criteria should be used to assess the quality of preventive medical examinations?
11. List individual measures of treatment, prevention and rehabilitation prescribed for an occupational disease or in case of suspicion of them.
12. Prescribe collective therapeutic and preventive sanitary and hygienic measures, which must be carried out on the basis of the results of preventive examinations.
13. The concept of working ability and types of its disorders.
14. The main tasks of VTE in the clinic of occupational diseases.
15. Benefits for persons with occupational diseases and intoxications.
16. The concept of claims to appeal to occupational diseases.
17. The concept of temporary disability and instructions for its establishment.
18. The concept of a sick leave certificate, indications of its issuance and the maximum period of continuation.
19. The main functions of the VTEK.
20. The concept of a group of disabled people and the criteria for its definition.
21. Conditions for re-examination of disabled persons I, II and III.
22. What cases of repeated examination of disabled people are carried out in a shorter time?
23. Measures for the social, labor and medical rehabilitation of patients with occupational diseases.
24. What circumstances should be taken into account when rationally employing patients with occupational diseases?
25. The importance of concomitant non-occupational diseases for determining disability groups in persons with occupational diseases.
26. In what areas of production are employees exposed to dust factors?
27. What properties of dust particles determine their fibrogenic effect? What types of dust have the highest fibrogenic activity?
28. What factors of the working environment and body characteristics determine the rate of development and progression

## Silicosis?

29. Basic theories of the pathogenesis of silicosis.
30. Describe the morphological structure of the silicote node.
31. What complaints and objective data are characteristic of simple silicosis?
32. The main X-ray signs of silicosis.
33. List the main indicators of the function of external respiration and the nature of their changes in silicosis.
34. List the most common complications of silicosis and determine their characteristics (based on clinical, radiological, laboratory data).
35. What variants of the silicosis process do you know?
36. What are the principles of classification of pneumoconioses in our country?
37. In what occupational diseases is the differential diagnosis of silicosis carried out?
38. What are the basic principles of silicosis treatment? Why can't the irreversibility of large-scale morphological changes justify the refusal of treatment?
39. What are the medical and physiotherapeutic methods of treating silicosis and its complications?
40. Main criteria for assessing the working capacity of patients with silicosis.
41. What is the difference between the clinical picture of silicosis and silicoconiosis?
42. What is the difference between the clinical picture of carboconiosis and silicosis?
43. What is the difference between the clinical picture of metalloconiosis and silicosis?
44. What are the features of the clinical picture of pneumoconiosis caused by exposure to organic dust?
45. What clinical forms of occupational diseases can be observed when exposed to Electric welding spray?
46. In which industries and professions are workers exposed to dust factors?
47. What properties of industrial dust determine its ability to cause chronic dust bronchitis?
48. List the complaints typical of patients with chronic dust bronchitis. Are there any complaints? Specific to dust bronchitis?
49. What are the objective symptoms of chronic dust bronchitis? Are there any specific options among them?
50. To provide data on the main instrumental methods of research used to diagnose dust bronchitis.
51. List the criteria for etiological diagnosis of chronic dust bronchitis (confirm the relationship of the disease with exposure to industrial dust).
52. List the principles of treatment of patients with chronic dust bronchitis.
53. What are the rules of VTE for chronic dust bronchitis?
54. What are the directions of technical, sanitary, hygienic and medical prevention of dust bronchitis?
55. How do you envision the role of the occupational health and safety physician in establishing a link between chronic bronchitis and the profession and in developing and implementing preventive measures?
56. What unfavorable production factors can cause the development of occupational bronchial asthma? Give examples of substances that have sensitive, irritating and combined effects.
57. What is the clinical picture of mild, moderate and severe bronchial asthma?
58. List the main indicators of the function of external respiration and describe the nature of their changes in bronchial asthma.
59. The totality of what data serves as the basis for the diagnosis of bronchial asthma of occupational origin?
60. What is the difference in the prognosis for occupational bronchial asthma in each case?
61. What are the basic principles of bronchial asthma treatment?
62. Main industries and technological processes in which berylliosis can occur.
63. What are the most toxic beryllium compounds?
64. Pathogenesis of berylliosis. Ways of penetration of beryllium and its compounds into the body and methods of excretion. Effect of beryllium content in the air of working premises on the course and severity of clinical manifestations of the disease.
65. What beryllium compounds cause acute intoxication? List the clinical syndromes of acute beryllium intoxication.
66. Chronic berylliosis: main clinical syndromes, extrapulmonary lesions, features of gas exchange narration.
67. X-ray image of lung lesions at stages I, II and III of chronic Berylliosis. 68. Basic therapeutic and preventive measures for berylliosis.
69. VTE issues.
70. List industries in which vibration is an occupational risk factor.
71. Name the main occupational groups of workers who may be exposed to
72. What are the main parameters of vibrations? What is their importance in the development of the disease?
73. What factors contribute to the development of vibration disease?
74. Describe the classification of vibration sickness.
75. What are the main clinical syndromes in vibration sickness in workers with manual pain Mechanized tools?
76. To characterize the clinical syndromes of vibration sickness resulting from the impact of general vibration.
77. What are the features of the clinical manifestations of the early stages of vibration disease?
78. Describe functional methods for diagnosing vibration sickness.
79. Describe the differential diagnosis of vibration disease.
80. What are the main methods of treatment and features of medical and labor expertise in vibration diseases?
81. List the main measures of medical and hygienic prevention of vibration diseases.
82. What is the role of the hygienist in establishing the connection between the disease and the profession and the conduct of the activity?

- Are they aimed at preventing the development of vibration diseases and restoring the ability to work?
83. Describe the conditions that may be the cause of occupational diseases of the musculoskeletal system List the approximate professions in which they can work.
  84. What are the causes of autonomic polyneuropathy of an occupational nature?
  85. To carry out a differential diagnosis of occupational and vegetative polyneuropathy.
  86. Describe the clinical picture of scapulohumeral periarthritis, methods of treatment, as well as medical and obstetric examination.
  87. What is the diagnostic value of X-ray examinations in this disease?
  88. Tell us about the pathogenesis of epicondylitis, make a differential diagnosis with arthritis and arthrosis of the elbow joint.
  89. Describe the symptoms of Durn, Thomsen, Welsh, Elkin, Finkelstein. What diseases are they characterized by?
  90. Tell us about the clinical symptoms of occupational myositis, methods of their diagnosis. How are disability issues resolved?
  91. Describe the clinical picture of Dequervain's disease.
  92. What are the clinics and methods of treating finger snap?
  93. Name the main industries and occupational groups of workers who may be exposed to lead compounds.
  94. List the ways in which lead enters the body.
  95. What are the main pathogenetic mechanisms of the development of lead intoxication?
  96. Describe the current classification of chronic lead intoxication.
  97. List the main clinical symptoms and syndromes of lead intoxication caused by inorganic and organic lead compounds.
  98. Give the criteria for the differential diagnosis of lead intoxication.
  99. Describe the main methods of treatment and features of VTE in chronic lead intoxication.
  100. What is the role of the hygienist and occupational pathologist in establishing the relationship between the disease and the patient's working conditions, as well as in carrying out preventive measures aimed at preventing lead intoxication, as well as restoring the patient's ability to work? 33. List industries and professions in which aromatic hydrocarbons are unfavorable factors of production.
  101. Describe the pathways of penetration, metabolism and excretion of benzene and its homologues from the body.
  102. Which organs and systems are affected by aromatic hydrocarbons? What do you know Pathogenetic mechanisms of intoxication?
  103. Describe the clinical picture of acute intoxication.
  104. What qualitative and quantitative changes in peripheral blood are characteristic of Intoxication with aromatic hydrocarbons?
  105. What neurological syndromes are observed in the clinic of intoxication with aromatic hydrocarbons?
  106. What therapeutic and preventive measures are taken in chronic intoxication with benzene and its homologues?
  107. How are the issues of assessing working capacity in this disease resolved?
  108. Name the industries where contact with mercury and its inorganic compounds is possible,
  109. What additional unfavorable occupational factors can contribute to the development of mercury intoxication?
  110. Ways of mercury entry into the body and their role in the development of intoxication.
  111. In what organs does mercury precipitate?
  112. The main ways of excretion of mercury from the body.
  113. What is meant by "carrying" mercury and can it be considered a disease?
  114. What are the main symptoms of micromercurialism and classical mercury intoxication?
  115. What is the modern classification of chronic mercury intoxication?
  116. Which organs and systems suffer from chronic mercury intoxication? List the main clinical syndromes of the disease.
  117. Name the main methods of functional and laboratory diagnostics that make it possible to assess the severity of chronic mercury intoxication.
  118. Name the methods of treatment of mercury intoxication.
  119. What is the scheme of administration of unioil in acute and chronic mercury intoxication?
  120. What are the most effective methods to prevent mercurialism?
  121. List the medical contraindications that prevent employment in contact with mercury. What is demercurialization?
  122. List the main toxic substances of irritant action and Determine the role of their physical properties in the development of respiratory lesions.
  123. Describe your ideas about the pathogenesis of respiratory lesions by toxicochemical etiology.
  124. What are the main clinical forms of respiratory lesions by toxicochemical etiology?
  125. Describe the clinical picture of poisoning with chlorine and its compounds.
  126. What is the clinical picture of sulfur dioxide intoxication?
  127. Describe the clinical picture of hydrogen sulfide poisoning.
  128. What is the clinical picture of nitric oxide poisoning?
  129. What are the principles of emergency care for acute toxic injuries of the respiratory system?
  130. Describe a set of therapeutic measures for chronic respiratory diseases with toxic and chemical etiologies.
  131. How is the examination of the ability to work carried out in respiratory injuries of toxic and chemical etiology?

132. Prevention of respiratory injuries with the help of irritating substances.
133. List the main work processes in which agricultural workers may be exposed to pesticides.
134. Name the pesticides that are most common in modern agriculture and assign their classification.
135. What are the main ways of pesticides entering the body?
136. What is the pathogenesis of chronic pesticide intoxication of various chemical structures?
137. Describe the clinical picture of intoxication with organochlorine and mercury pesticides.
138. What is the clinical picture of intoxication with pesticides and organophosphates?
139. Make a differential diagnosis between acute and chronic intoxication with toxic chemicals.
140. What are the main methods of laboratory and functional diagnostics of chronic intoxication with toxic chemicals?
141. What are the principles of antidote therapy for pesticide intoxication of various chemical structures?
142. Describe your ideas about the basic principles of VTE in occupational intoxication with toxic chemicals.
- List methods for preventing pesticide intoxication in agriculture
143. Name the causes of acute intoxication in industrial conditions.
144. List the main ways in which industrial poisons enter the body.
145. Give a classification of acute occupational poisoning.
146. List the basic principles of diagnosing acute occupational poisoning.
147. Describe the clinical symptoms of acute carbon monoxide intoxication.
148. To characterize the clinical symptoms of acute occupational intoxication aromatic hydrocarbons.
149. Describe the clinical signs of acute intoxication of occupational pesticides.
150. What are the special clinical and laboratory methods used to diagnose the most common acute occupational intoxications?
151. Tell us about the basic principles of emergency medical care and treatment of acute occupational intoxications.
152. What is the role of the occupational health and safety doctor in establishing a diagnosis and implementing measures? is aimed at preventing acute occupational poisoning and preserving the health of employees?
- Tasks to check the level of learning in order to BE ABLE AND MASTER are checked by solving situational problems.

### 5.2. Topics of term papers (projects)

Term papers are not provided.

### 5.3. Valuation Tools Fund

1. THEORETICAL TASK. List of questions in paragraph 5.1. According to the topic.
2. PATIENT SUPERVISION:
- 1) Each student receives one patient to look after.
  - 2) Using the example of a supervised patient, the student should do the following:
    - 1) Get acquainted with the topic;
    - 2) Establish a relationship of trust;
    - 3) Collect complaints. The complaints associated with this disease are described;
    - 4) Collect the patient's medical history (onset of the disease, course of the process, treatment in the past, causes, with which the patient associates his illness with the reasons for hospitalization);
    - 5) Collect the life cycle (diseases suffered in the past, family history);
    - 6) Collection of professional anamnesis (professional route; conducting a sanitary examination hygienic features);
    - 7) Examination and examination of the patient;
    - 8) Describe clinical status;
    - 9) Analysis of laboratory and instrumental research data;
    - 10) Make a preliminary diagnosis;
    - 11) Differential diagnosis;
    - 12) Make a clinical diagnosis;
    - 13) Determine the tactics of the proposed treatment;
    - 14) Keep diaries of the stage or extract of the epicrisis in the history of educational medicine;
    - 15) Briefly summarize the etiology, pathogenesis, clinical picture and treatment.
    - 16) Prognosis. Recommendations to the patient.
3. MEDICAL HISTORY.
4. TESTS A list of test questions depending on the topic of the section.
5. REPORT WITH PRESENTATION. The student independently chooses the topic of the report. Presentation topics:
1. The impact of new factors of the working environment on the health of employees.
  2. Principles of VTE in occupational diseases.
  3. Modern ideas about the pathogenesis of pneumoconiosis.
  4. Organization and conduct of preliminary and periodic examinations of persons working in conditions of exposure to dust.
  5. Criteria for etiological diagnosis of dust bronchitis.
  6. Differential diagnosis of asbestosis.
  7. The modern idea of the pathogenesis of vibration diseases.
  8. Differential diagnosis of vibration diseases.
  9. Differential diagnosis of occupational diseases of the upper extremities.

10. Differential diagnosis of lead intoxication.  
 11. The effect of benzene and its homologues on the body of women and children.  
 12. Historical aspects of the study of the etiology, clinical picture and treatment of chronic mercury intoxication.  
 6. SITUATIONAL TASKS.  
 7. QUESTIONS FOR DIFFERENTIAL LOANS.

#### 5.4. List of Types of Assessment Tools

1. Theoretical task.  
 2. Patient supervision.  
 3. Medical history.  
 4. Tests.  
 5. Report with presentation.  
 6. Situational tasks.

### 6. EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT OF THE DISCIPLINE (MODULE)

#### 6.1. Recommended Literature

##### 6.1.1. References

	Authors, compilers	Title	Publisher, year
L1.1	Karapata.. Kiev, 1986	Occupational lung diseases.	
L1.2	Ordobaev B.S., Shabikova G.A.	Life Safety: A Textbook	DCMU 2016
L1.3	Artamonova V.G., Mukhin N.A.	Occupational Diseases: A Textbook	Moscow, Meditsina Publishing House, 2004
L1.4	Idirisov A.N., Ismailov A.A., Nursitov T.A., Sartov N.M., Maliev Kh.A.	Life Safety: An Educational and Methodological Guide	Bishkek: KSMA 2014
L1.5	V.V. Kosarev, V.S. Lotkov, S. A. Babakov	Occupational diseases: occupational diseases	GEOTAR – Media 2008

#### 6.3. List of Information and Educational Technologies

##### 6.3.1 Competency-Based Educational Technologies

6.3.1.1	Traditional educational technologies: lectures, practical classes focused on the transfer of knowledge and methods of action, taught to students in a ready-made form and intended for assimilation. Lectures provide for the use of multimedia equipment.
6.3.1.2	Innovative educational technologies are used: analysis of specific situations, preparation of reports by students with presentations on given topics.
6.3.1.3	Information and educational technologies: independent use of computer equipment and Internet resources by students to perform practical tasks and independent work.

##### 6.3.2 List of information reference systems and software

6.3.2.1	KRSU Electronic Library ( <a href="http://www.lib.krsu.edu.kg">www.lib.krsu.edu.kg</a> );
6.3.2.2	Electronic library system "Knowledge"-( <a href="http://www.znaniy.com">www.znaniy.com</a> ).

### 7. MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE (MODULE)

7.1	Disciplines are held on the basis of the City Clinical Hospital No1 (an institution of the tertiary level of health care). It has 9 specialized departments, of which 4 are therapeutic (departments of cardiology, rheumatology, endocrinology, emergency therapy). The school has 8 classes of standard equipment for 100 places with a total area of 200 sq. m. (a block of tables, sofas, boards). personal computer, projector). Students have access to information stands (4 places), posters, an electronic library (30 textbooks), educational films (20 pieces), a database of clinical materials (ECG, ultrasound).
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### 8. METHODOICAL INSTRUCTIONS FOR STUDENTS ON THE DEVELOPMENT OF THE DISCIPLINE (MODULE)

#### MODULAR MANAGEMENT IN THE DISCIPLINE INCLUDES:

1. Current control: assimilation of educational material in class classes (lectures, practical classes; attendance and activity are taken into account), supervision of the patient, solving situational problems and performing mandatory tasks for independent work.  
 2. Control at the intermediate exam: checking the completeness of knowledge and skills on the material of the module as a whole. The implementation of modular management tasks is carried out in writing, in the form of tests.

summing up the medical history and solving situational problems.

#### BASIC REQUIREMENTS FOR INTERMEDIATE CONTROL

When taking exams, students are required to have records of grades with them and submit them to the teacher.

The teacher is granted the right to award a credit without questioning to those students who scored more than 60 points on the current and intermediate control exams.

At the intermediate control, the student must correctly answer the theoretical questions of the ticket (know) and correctly perform the situational task (be capable, possess).

During the intermediate control, the teacher sums up the results of the observation of the patient by students during the semester.

Assessment of intermediate control:

At least 20 points — questions to check the level of learning "to know" (with the correct formulation of basic concepts).

20–25 points — tasks for the level "to be capable" and "to have" (with the correct formulation of the essence of the problem and recommendations).

25–30 points — tasks of the levels "To be capable" and "Master" (if the control task is fully completed).

#### I. BASIC REQUIREMENTS FOR ROUTINE CONTROL

When creating a practical lesson, teachers adhere to the following indicative plan:

Organizational stage of the lesson (up to 2% of cases):

- (a) Roll call;
- b) give homework;
- c) motivation of the topic of the lesson;
- d) familiarization of students with the goals and lesson plan.

Control and correction of the initial level of knowledge (up to 20%):

- a) test control options;
- b) correction of theoretical knowledge by the teacher.

The stage of demonstration of practical skills and/or thematic patients by the teacher (up to 15%).

Independent work of students at the bedside (up to 45%) or the performance of situational tasks in the absence of a thematic patient.

The final stage of the lesson (up to 18%):

- a) final control of practical skills in patient analysis;
- b) final control over theoretical knowledge, including the solution of clinical problems;
- c) summarize the lesson and individual assessment of students.

#### II. RECOMMENDATIONS FOR THE ORGANIZATION OF INDEPENDENT WORK OF THE STUDENT

Time management.

Recommended time allocation:

- study of notes on the day of the lecture – 10-15 minutes;
- revision of notes before the next lecture – 10-15 minutes;
- study of theoretical material from the textbook – 1 hour per week;
- Preparation for the practical lesson – 2 hours.
- Total: 3 hours 30 minutes per week.

Sequence of actions for high-quality assimilation of the material:

after the lecture, repeat and think over the notes (10-15 minutes);

before the next lecture, repeat the previous one and propose a new topic (10-15 minutes);

allocate 1 hour a week to work with literature;

study key concepts and approaches in preparation for practical classes;

When solving problems, determine the requirements, choose theoretical material and make an implementation plan.

Use of the educational and methodological complex:

It is recommended to rely on the teacher's recommendations and lectures.

Work with literature:

The material becomes more understandable through a combination of lectures, notes and textbooks.

It is recommended to do the exercises after studying each paragraph and ask yourself the following questions:

What is this paragraph about?

What new concepts have been introduced?

What is the practical significance?

Preparation for intermediate and intermediate control:

It is necessary to use the textbook, achieve understanding, perform exercises and tasks.

In preparation for intermediate control, it is necessary to know the definitions of all concepts and be able to solve typical problems.

Doing homework:

First, study the basic concepts, then determine a plan for solving the problem and draw a conclusion.

Test preparation:

Learn the theory and complete a few typical tasks.

How to make up for missed classes:

Assimilation control is carried out systematically and is reflected in the log.

unsatisfactory grades must be calculated at an individual interview;

A lecture missed without a valid reason is solved by an oral question or essay within a month;

practical exercises missed without a valid reason are mandatory;

trainings are held according to the schedule of the department;

Missed classes must be resolved within 10 days;

in case of a good reason – work on thematic material without taking into account hours;

absence due to a long-term illness – according to an individual schedule;

In some cases (conferences, competitions, etc.), students may be exempt from part of the work.

#### RECOMMENDATIONS FOR PREPARING A PRESENTATION

A multimedia presentation is a form of independent work of students to create visual information material using the PowerPoint program. The work requires the skills of searching, systematizing and formatting information.

Requirements:

The topic is chosen by the student from the FOS list, agreed with the teacher and must correspond to the topic of the lesson.

Stages of presentation preparation:

drawing up a plan (goals, objectives);

Thinking through each slide:

- how it reveals the main idea;
- what content will be presented;
- what will be said orally;
- How the transition will take place.

Presentation:

slides should be checked with fonts and indents;

The title slide must be properly designed;

the number of slides does not exceed 30;

the use of figures, graphs, tables, formulas is encouraged;

The slide verbally gives formal information – its meaning;

switching speed: 1-2 minutes per slide;

When explaining tables, indicate what the rows and columns mean;

To avoid errors, it is recommended that you enter formulas in the Word object.

the main font is Arial or similar;

Formulas should have the same font size as the text.

The student is obliged to submit the report at the appointed time.

Speaker Instructions:

transmit new information;

use technical means;

be well versed in the topic;

answer questions;

Comply with the time limit: Report – 10 minutes, Discussion – 5 minutes.

Structure of speech:

introduction (title, idea, relevance, questions);

the main part (revealing the essence of the topic, the use of visualization);

Conclusion (brief conclusions).

#### ESSAY WRITING GUIDELINES

The topic is chosen in accordance with the teacher. The abstract should reflect the scientific and social aspects of the problem, contain theoretical provisions and specific examples, and be based on several sources.

Additional literature: monographs, articles, popular science journals ("Pediatric Surgery", "Bulletin of KRGU", "Health Care of Kyrgyzstan", "Bulletin of KSMA", etc.).

The plan of the abstract should belong to the author. All borrowings should be accompanied by recommendations. Quotation marks should be given in quotation marks indicating the source and page.

Typography:

A4 format;

title page (name of the university, discipline, topic, surname of the student, group, year, city);

content;

text divided into chapters and subchapters;

use of graphs, tables, diagrams;

the "Conclusion" and "References" sections.

Example of bibliographic references:

Author: I.O. Book Title. — Place of publication: publisher, year. -Pages.

Author's I.O. Title of the article // Title of the journal. — A year. "Tom, no. — Pages.



Author's I.O. Title of the article / Title of the collection. — Place of publication: publisher, year.