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Khanty-Mansiysk Autonomous Okrug-Ugra "Surgut State University"

Approved by
Deputy Rector for Academic Affairs
E.V. Konovalova
"11" June 2025 Record No. 5

# **Occupational diseases**

Syllabus

Department Internal diseases

Curriculum s310501-ЛечДелоИн-25-5.plx

Specialty 31.05.01 General Medicine

Qualification General Practitioner

Form of education Full-time

Total (in credits) 3

Total academic hours 72 Control:

including: Credit with a mark, 9<sup>th</sup> term

Classes 48 Self-study 24

## Course outline in terms

Academic year (Term)	9 (	5.1)	Total		
Weeks	17	2/6			
Types of classes	Cur	Syl	Cur	Syl	
Lectures	16	16	16	16	
Practical	32	32	32	32	
Self-study	24	24	24	24	
Total	72	72	72	72	

The Syllabus is compiled by:  PhD in Medical Sciences (Medicine), Senior Lecturer, Matveeva N.I
1 nD in Medical Sciences (Medicine), Senior Lecturer, Maiveeva N.I
The Syllabus  Occupational diseases
Developed in accordance with Federal State Educational Standard:
Federal State Educational Standard of higher education in the specialty 31.05.01 General medicine (Order of the Ministry of Education and Science of the Russian Federation on August 12, 2020 No. 988)
Based on the Curriculum: 31.05.01 GENERAL MEDICINE
Specialization: General Medicine
Approved by the Academic Council of Surgut State University, "11" June 2025, Record No.5
The Syllabus was approved by the department Internal diseases
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1. COURSE OBJECTIV	

1.1 **The objective** of the course "Occupational diseases" is to develop interdisciplinary thinking in order to form professional competencies, necessary in the framework of the professional activity of the therapist.

The aim is to study principles and methods of diagnosis and treatment of major occupational diseases.

2. COURSE OVERVIEW					
(in curriculum)	Б1.О.04				
2.1	Assumed background:				
	Anatomy				
	Chemistry				
	Biology				
	Internal Diseases Propaedeutics, X-Ray Diagnostics				
	Hominal physiology				
	Biochemistry				
	Pharmacology				
	Microbiology, Virology				
	Histology, embryology, cytology				
	Clinical pathophysiology				
	Clinical pathologic anatomy				
	Pathologic anatomy				
	Pathophysiology				
2.2	Post-requisite courses and practice:				
	Functional diagnostics				
	Hospital Therapy, Endocrinology				
	Hospital surgery, Paediatric surgery				
	Ambulatory Therapy				
	Anesthesiology, resuscitation, intensive care				

Clinical pharmacology
Disaster Medicine
Medical rehabilitation
Oncology, X-Ray Therapy
Phthisiatry

### 3. COMPETENCES UPON COMPLETION OF THE COURSE (MODULE)

- PC-1.1: Demonstrates knowledge about the etiology, pathogenesis, diagnostic criteria (clinical subjective, physical, laboratory, instrumental) determines the patient's main pathological conditions, symptoms, disease syndromes and diagnoses nosological forms according to the International Statistical Classification of Diseases and Health-related Problems, X-XI revisions
- PC-1.2: Carries out diagnostics, evaluates the prognosis (short-, medium- and long-term course) of the disease, identifies acute complications and complications of chronic diseases
- PC-3.1: Examines the patient (handle the patient's complaints, anamnesis, physical data based on the examination results, determines the necessary examination plan, evaluates the parameters of laboratory, instrumental, pathological, anatomical and other methods in order to diagnose of diseases, assesses the prognosis (short, medium, long-term) of its course and outcomes
- PC-3.2: Makes an initial and clinical diagnosis in accordance with the International Statistical Classification of Diseases and Health–Related Problems X XI revisions and current clinical classifications
- PC-3.3: Performs early and differential diagnosis
- PC-3.4: Performs patient triage and coordinates care in accordance with current legislation, standards, medical procedures, and clinical recommendations
- PC-6.1: Evaluates the patient's functional limitations to determine temporary or permanent disability status
- PC-6.4: Refers patients requiring medical rehabilitation to a specialist for sanatorium treatment, including cases involving an Individual Rehabilitation Program (IRP) or Habilitation. This is performed in accordance with applicable clinical guidelines, treatment protocols, and medical care standards.
- OPC-8.1: Conducts medical and social examinations (MSE) to assess patients' work ability and determine temporary or permanent disability status across all stages of medical care, in accordance with applicable regulations and guidelines.
- OPC-7.2: Prescribes evidence-based treatment regimens aligned with current clinical guidelines
- OPC-7.3: Monitors treatment effectiveness and safety for ongoing disease management prescribed according to current approved clinical guidelines.
- OPC-6.3: Provides direct emergency care and coordinates crisis operations (evacuations, epidemic control, radiation response) in disaster settings following incident command protocols.
- OPC-5.8: Analyzes disease pathogenesis to pinpoint dominant pathophysiological mechanisms and selects guideline-compliant pharmacotherapy.
- OPC-1.2: Applies knowledge of Russian healthcare legislation (Federal Laws 323-FZ, 326-FZ, Labor Code) to establish and maintain doctor-patient relationships in full compliance with legal and ethical standards.

# By the end of the course students must:

3.1	Know:
	- significant problems and processes
	- main pathological symptoms, clinical and laboratory syndromes;
	- the features of collecting anamnesis from patients with therapeutical profile;
	- basic and additional methods of patient's examination (in accordance with ICD).
	- clinical symptoms and pathogenesis of major diseases, their prevention, diagnosing and treating;
	- clinical symptoms of borderline states;
	- principles of the non-drug and medication therapy, physiotherapy, physical therapy and medical monitoring;
	- indications for surgical treatment of somatic pathology;

- basics of rational diet therapy;
- modern methods of clinical and laboratory diagnosing and treating in accordance with the standards and clinical protocols;
- principles of differential diagnosis of the most common pathologies;
- principles of treating and preventing diseases;
- side effects of drugs;
- the emergency therapeutic care in the life-threatening conditions;
- indications for hospitalization of patients.
- the basic principles of treating patients with different nosologies.

#### 3.2 Be able to:

- 3.2.1 conduct a survey, physical and clinical examination;
  - interpret the results of laboratory and instrumental examination.
  - interpret the results of laboratory and instrumental methods of research;
  - give a diagnosis according to the ICD based on the data from the main and additional researches;
  - conduct basic and additional researches to clarify the diagnosis;
  - use normative documents in medical practice;
  - outline the program of patient's examination;
  - formulate a detailed clinical diagnosis based on the data obtained during the examination;
  - determine the activity and the stage of the pathological process;
  - assign treatment to the patient, taking into account knowledge of the etiology and the features of the disease pathogenesis (etiological, pathogenetic treatment, basic and additional therapy, symptomatic treatment);
  - develop specific measures for the secondary prevention and rehabilitation therapy of the supervised patient;
  - keep medical records;
  - predict the necessity for the medications.
  - treat patients with different nosologies.

4. STRUCTURE AND CONTENTS OF THE COURSE (MODULE)								
Class Code	Topics/Class type	Term / Academic year	Academic hours	Competences	Literature	Interacti ve	Notes	
1.1	General principles of medical care for patients with occupational diseases. Regulatory framework. / Lec/		2	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2			
1.2	General principles of medical care for patients with occupational diseases. Regulatory framework.		4	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2			
1.3	General principles of medical care for patients with occupational diseases. Regulatory framework /Self-study/		3	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2			

1.4	Periodic and preliminary medical examinations. Social security medical examination. Prevention of occupational diseases. / Lec/	9	2	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.5	Periodic and preliminary medical examinations. Social security medical examination. Prevention of occupational diseases. /Pr/	9	4	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.6	Periodic and preliminary medical examinations. Social security medical examination. Prevention of occupational diseases. / Self-study/	9	3	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.7	General concepts of dust lung diseases. Pneumoconiosis /Lec/	9	2	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.8	General concepts of dust lung diseases. Pneumoconiosis /Pr/	9	4	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.9	General concepts of dust lung diseases. Pneumoconiosis /Self- study/	9	3	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.10	Occupational chronic bronchitis. Occupational bronchial asthma /Lec/	9	2	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	

1.11	Occupational chronic bronchitis. Occupational bronchial asthma /Pr/  Occupational chronic bronchitis. Occupational bronchial asthma /Self-study/	9	3	OPC-1.2 OPC-5.8 OPC-6.3 OPC-7.2 OPC-7.3 OPC-8.1 PC-1.1 PC-1.2 PC-3.1 PC-3.2 PC-3.3 PC-3.4 PC-OPC-1.2 OPC-5.8 OPC-6.3 OPC-7.2 OPC-7.3 OPC-8.1 PC-1.1 PC-1.2 PC-3.1 PC-3.2 PC-3.1 PC-3.2 PC-3.3 PC-3.4 PC-3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.13	Occupational diseases caused by harmful physical factors (Vibration disease and Noise induced hearing loss) /Lec/	9	2	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.14	Occupational diseases caused by harmful physical factors (Vibration disease and Noise induced hearing loss) /Pr/	9	4	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.15	Occupational diseases caused by harmful physical factors (Vibration disease and Noise induced hearing loss) /Self-study/	9	3	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.16	Industrial poisoning. Chronic occupational intoxications of lead and mercury /Lec/	9	2	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	
1.17	Industrial poisoning. Chronic occupational intoxications of lead and mercury /Pr/	9	4	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	

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1.18	Industrial poisoning.	9	3	OPC-1.2 OPC-	L1.1, L1.2,		
	Chronic occupational			5.8 OPC-6.3	L2.1, L2.2,		
	intoxications of lead and			OPC-7.2 OPC-	L2.3, L2.4,		
	mercury /Self-study/			7.3 OPC-8.1 PC-	L3.1, L3.2		
				1.1 PC- 1.2 PC-			
				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
1.19	Acute and chronic	9	2	OPC-1.2 OPC-	L1.1, L1.2,		
	professional intoxications			5.8 OPC-6.3	L2.1, L2.2,		
	of aromatic			OPC-7.2 OPC-	L2.3, L2.4,		
	hydrocarbons /Lec/			7.3 OPC-8.1 PC-	L3.1, L3.2		
	'						
				1.1 PC- 1.2 PC-			
				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
				6 1 PC-6 4			
1.20	Acute and chronic	9	4	OPC-1.2 OPC-	L1.1, L1.2,		
	professional intoxications			5.8 OPC-6.3	L2.1, L2.2,		
1	of aromatic			OPC-7.2 OPC-	L2.3, L2.4,		
	hydrocarbons /Pr/			7.3 OPC-8.1 PC-	L3.1, L3.2		
1				1.1 PC- 1.2 PC-			
				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
1.21	Acute and chronic	9	3	OPC-1.2 OPC-	L1.1, L1.2,		
	professional intoxications			5.8 OPC-6.3	L2.1, L2.2,		
	of aromatic			OPC-7.2 OPC-	L2.3, L2.4,		
	hydrocarbons /Self-study/			7.3 OPC-8.1 PC-	L3.1, L3.2		
				1.1 PC- 1.2 PC-			
				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
1.22	Occupational intoxications	9	2	OPC-1.2 OPC-	L1.1, L1.2,		
	caused by the irritants			5.8 OPC-6.3	L2.1, L2.2,		
	action /Lec/			OPC-7.2 OPC-	L2.3, L2.4,		
				7.3 OPC-8.1 PC-	L3.1, L3.2		
1				1.1 PC- 1.2 PC-			
1				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
1.23	Final lesson /Pr/	9	4	OPC-1.2 OPC-	L1.1, L1.2,		
1.25				5.8 OPC-6.3	L2.1, L2.2,		
					L2.3, L2.4,		
1				OPC-7.2 OPC-	L3.1, L3.2		
1				7.3 OPC-8.1 PC-			
1				1.1 PC- 1.2 PC-			
1				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
1.24	E' 11 /0.10 · 1 /			OPC-1.2 OPC-	11111		
1.24	Final lesson /Self-study/	9	3		L1.1, L1.2,		
1				5.8 OPC-6.3	L2.1, L2.2,		
1				OPC-7.2 OPC-	L2.3, L2.4,		
1				7.3 OPC-8.1 PC-	L3.1, L3.2		
1				1.1 PC- 1.2 PC-			
1				3.1 PC-3.2 PC-			
				3.3 PC-3.4 PC-			
				3.3 FC-3.4 PC-			

1.25	Credit with a mark / Credit/	9	0	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	Oral interview
1.26	Control work /Control/	9	0	OPC-1.2 OPC- 5.8 OPC-6.3 OPC-7.2 OPC- 7.3 OPC-8.1 PC- 1.1 PC- 1.2 PC- 3.1 PC-3.2 PC- 3.3 PC-3.4 PC-	L1.1, L1.2, L2.1, L2.2, L2.3, L2.4, L3.1, L3.2	Case history of the disease

		5. ASSESSMENT TOOLS		
		5.1. Tests and tasks		
Supplemen	t 1			
		5.2. Topics for written papers		
Supplemen	t 1			
		5.3. Assessment tools		
Supplemen	t 1			
		5.4. Assessment tools		
Discussion	, tests, essays. Practica	ıl skill test.		
	a mark: oral credit, pr			
		6. COURSE (MODULE) RESOURCES		
		6.1. Recommended Literature		
		6.1.1. Core		
	Authors	Title	Publish., year	Quantity
L1.1	Babanov S.A., Strizhakov L.A.,	Occupational diseases: textbook	Moscow: GEOTAR-	1
	Fomin V.V.		Media, 2021 electronic resource	
L1.2	Mukhin N.A., Kosarev V.V., Babanov S.A., Fomin V.V.	Occupational diseases: textbook	Moscow: GEOTAR- Media, 2021 electronic resource	1
	<u>!</u>	6.1.2. Supplementary	ļ.	
	Authors	Title	Publish., year	Quantity
L2.1	Bukhtiyarov I.V.	Occupational pathology: National guidelines.	M.: GEOTAR- Media, 2024 electronic resource	1
L2.2	Pankova V.B., Fedina I.N.	Occupational diseases of the ENT organs: a practical guide	M.: GEOTAR- Media, 2023 electronic resource	1

L2.3	Gorokhova S. G., Atkov O.Yu.	Fundamentals of professional cardiology. Cardiovascular diseases during work: a study guide	M.: GEOTAR- Media, 2023 electronic resource	1		
L2.4	Gorblyansky Yu. Y., Kontorovich E. P., Ponamareva O. P., Panova M. A.	Occupational pathology in questions and answers : a guide for doctors: a practical guide	M.: GEOTAR- Media, 2023. electronic resource	1		
		6.1.3. Methodical development	•	•		
	Authors	Title	Publish., year	Quantity		
L3.1	Matveeva N. I., Shuvalova O. I., Shevchenko O. V., Karpinsky V. N. A.	Occupational diseases: a collection of situational tasks	Surgut: Surgut Publishing Center, 2022, electronic resources	1		
L3.2	Shavaliev O. V., Kolesova E. N. B., Fedorova S. N. B.	Heavy metals and their effect on the body of workers: an educational and methodological guide	Saint Petersburg: NWSMU named after I.I. Mechnikov, 2022, electronic resource	1		
		6.2. Internet resources				
1	Educational resource for doctors. Dia Academy					
2	Endocrinological scientific center of the ministry of health of the Russian Federation					
3	Medline					
4	Free Medical Journals					
5	Occupational Medicine and Industrial Environmental Science https://www.journal-irioh.ru/jour					
6		edicum" http://www.consilium-medicum.com/				
7	Russian medical journ					
		6.3.1 Software				
	•	licrosoft, applied programs pack Microsoft Office				
6.3.1.2	Internet access (Wi-F	·				
		6.3.2 Information Referral systems				
	«Guarantor» http://wv					
	2 «Consultant Plus», «Consultant-region » http://www.consultant.ru					
6.3.2.3		o://www.studmedlib.ru				
	7. MATEI	RIAL AND TECHNICAL SUPPORT OF DISCIPLINE (MODU	LE)			
	Classrooms for lectures, seminars (practical classes), group and individual consultations, formative and summative control are equipped with typical educational furniture, technical teaching aids for the presentation of educational information					
7.2	Practical classes, individual consultations, formative and summative control are held in the classroom of the Department of Internal Diseases of the Medical Institute.					
7.3	Simulation center					
7.4	The audience of the simulation center equipped with simulation equipment, laboratory tools and consumables in sufficient quantity					
7.5	7.5 Multimedia Projector					
7.6	6 Library of laboratory and instrumental research results					
7.7	Collection of roles for	or standardized patients				
	Library of situational problems					
	Clinical Script Library					
	Eevaluation library					
	The classrooms for le	ctures are equipped with multimedia projectors, screen, and laptop, schairs.	stationary educatio	nal boa		

7.12 Classrooms have a material and technical base that is necessary for all types of disciplinary and interdisciplinary training, practical and research work of the students, and also complies with current sanitary and fire regulations and standards.