

Документ подписан простой электронной подписью  
 Информация о владельце:  
 ФИО: Косенок Сергей Михайлович  
 Должность: ректор  
 Дата подписания: 10.06.2024 08:08:45  
 Уникальный программный ключ:  
 e3a68f3eaa1e62674b54f4998099d3d6bfdcf836

**Budgetary institution of higher education**

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

I APPROVED  
 Vice-Rector for Educational

\_\_\_\_\_ E.V. Konovalova

June 13, 2024, UMS protocol No. 5

## Traumatology, orthopedics

### work program of the discipline (module)

Assigned to the department     **Surgical diseases**

Syllabus                             s310501-LechDeloIn-24-5.plx  
 Specialty: 05.31.01 General Medicine  
 Specialization: General Medicine

Qualification                    **Medical doctor**

Form of study                    **full-time**

Total labor intensity           **7 ZET**

Hours according to curriculum     252

including:

Auditory lessons                   144

independent work                   63

hours to control                    45

Types of control in semesters:

exams 9

credit 8

**Distribution of discipline hours by semester**

Semester (<Course>.<Semester on course>)	8 (4.2)		9 (5.1)		Total	
	UP	RP	UP	RP		
weeks	17 1/6		17 2/6			
Type of occupation	UP	RP	UP	RP	UP	RP
Lectures	16	16	16	16	32	32
Practical	64	64	48	48	112	112
Total audience	80	80	64	64	144	144
Contact work	80	80	64	64	144	144
Myself. Job	28	28	35	35	63	63
Watch for control			45	45	45	45
Total	108	108	144	144	252	252

The program was compiled by:

*Candidate of Medical Sciences, Associate Professor, Korzhenevsky V.K.*

Work program of the discipline

**Traumatology, orthopedics**

developed in accordance with Federal State Educational Standards:

Federal State Educational Standard of Higher Education in the specialty 05.31.01 General Medicine (Order of the Ministry of Education and Science of Russia dated 02.09.2016 No. 95)

compiled on the basis of the curriculum:

Specialty: 05.31.01 General Medicine

Specialization: General Medicine

Protocol No. 5 approved by the educational and methodological council of the university dated June 13, 2024.

The work program was approved at a department meeting

**Surgical diseases**

Head Department Doctor of Medical Sciences, Professor Darwin V.V.

### 1. GOALS OF DISCIPLINE MASTERING

1.1	The main goal of teaching traumatology and orthopedics is to train students in modern provisions of the theoretical and practical sections of this branch of medicine. Studying the etiology, pathogenesis of orthopedic diseases, their diagnosis, as well as determining tactics for the management and treatment of patients with orthopedic diseases and injuries.
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### 2. PLACE OF DISCIPLINE IN THE STRUCTURE OF PLO

Cycle (section) OOP:	B1.B
<b>2.1</b>	<b>Requirements for preliminary preparation of the student:</b>
2.1.1	Clinical pathological anatomy
2.1.2	Clinical pathophysiology
2.1.3	Anatomy
2.1.4	Topographic anatomy and operative surgery
2.1.5	General surgery, radiation diagnostics
2.1.6	Clinical anatomy
2.1.7	Histology, embryology, cytology
2.1.8	Normal physiology
2.1.9	Pathological anatomy
2.1.10	Pathophysiology
<b>2.2</b>	<b>Disciplines and practices for which mastering a given discipline (module) is necessary as a prerequisite:</b>
2.2.1	Medical rehabilitation
2.2.2	Anesthesiology, resuscitation, intensive care
2.2.3	Hospital surgery, pediatric surgery
2.2.4	Emergency Medicine

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

**OC-1: ability for abstract thinking, analysis, synthesis**

**GPC-9: the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems**

**PC-5: readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathological-anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease**

**PC-6: the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision**

**PC-8: ability to determine tactics for managing patients with various nosological forms**

**PC-9: readiness to manage and treat patients with various nosological forms in an outpatient setting and in a day hospital setting**

**As a result of mastering the discipline, the student must**

<b>3.1 Know:</b>	
3.1.1	- About the specifics of the subject and the objectives of the discipline of traumatology, orthopedics;
3.1.2	- About the role, place and connection with other sciences in the system of medical disciplines;
3.1.3	- The main historical stages in the development of traumatology and orthopedics;
3.1.4	- On the prospects for the development of science and new directions in the study of traumatology and orthopedics;
3.1.5	- Basic concepts used in traumatology and orthopedics;
3.1.6	- General morphofunctional, physiological conditions and pathological processes in the human body, conditions and individual diseases of the musculoskeletal system;
3.1.7	- Examination of a patient with damage or disease of the musculoskeletal system.
3.1.8	- The role of the mechanism of injury in the occurrence of various injuries;
3.1.9	- Typical mechanisms of damage in case of road traffic injury, fall from height, collision with a car.
3.1.10	- Purposeful collection and analysis of the patient's complaints, his medical history, examination results, laboratory, instrumental, pathological-anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease;
3.1.11	- Basic and additional examination methods, laboratory and instrumental diagnostics;
3.1.12	- Modern methods for assessing the condition of tissues and functions of the musculoskeletal system, necessary for making a diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision;
3.1.13	- Algorithm for diagnosing emergency conditions;
3.1.14	- Classification, etiology, pathogenesis, clinical picture, methods for diagnosing diseases of bones and joints, basic principles of radiation examination;
3.1.15	- Causes of iatrogenic complications and errors in the treatment of diseases of bones and joints and ways to prevent them
3.1.16	- Indications for the use of treatment methods, taking into account etiotropic and pathogenetic factors;
3.1.17	Tactics of management and treatment of patients with traumatological and orthopedic diseases
3.1.18	- Medicines used at each stage of treatment of diseases.
<b>3.2 Be able to:</b>	
3.2.1	- Use acquired knowledge in pathophysiology, clinical pathophysiology when studying other biomedical and clinical disciplines;
3.2.2	- Correctly interpret and apply the basic concepts of pathophysiology, clinical pathophysiology;
3.2.3	- Analyze pathological processes and individual diseases of the musculoskeletal system;
3.2.4	- Conduct clinical and pathogenetic parallels of leading pathological syndromes;
3.2.5	- Conduct differential diagnosis between pathological conditions based on drawing up pathogenesis diagrams;
3.2.6	- Justify the pathogenetic approach to the treatment of the pathological process (disease);
3.2.7	- Examine a patient with damage or disease of the musculoskeletal system;
3.2.8	- Conduct targeted collection of complaints and medical history;
3.2.9	- Investigate peripheral blood circulation and innervation of the limb;
3.2.10	- Make a diagnosis in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision based on data from basic and additional research methods;
3.2.11	- Conduct basic and additional research methods for diseases of bones and joints to clarify the diagnosis.
3.2.12	- Interview the patient and his relatives, identify complaints, life history, medical history;
3.2.13	- Draw up a treatment plan for patients with orthopedic diseases, taking into account existing somatic diseases;
3.2.14	- Interview the patient and his relatives, identify complaints, life history, medical history, identify general and specific signs of the disease, especially in cases requiring emergency care or intensive care;
3.2.15	- Assess the severity of the patient's condition and take the necessary measures to bring the patient out of this condition, determine the volume and sequence of resuscitation measures and provide the necessary urgent first aid;
3.2.16	- Determine the need for special research methods, interpret their data;
3.2.17	- Develop a plan for preparing the patient for emergency or planned surgery, determine the degree of disruption of homeostasis and prepare all functional systems of the patient's body for surgery;
3.2.18	- Determine indications and contraindications for surgical treatment of purulent bone pathology;

3.2.19	- Assess the impact of drug therapy prescribed for diseases, taking into account the course of somatic diseases;
3.2.20	- Develop a scheme for postoperative patient management and prevention of postoperative complications;
3.2.21	- Carry out the necessary rehabilitation measures for the patient;
3.2.22	and carry out medical examination of the patient with an assessment of its effectiveness;
3.2.23	- Prepare the necessary medical documentation.

4. STRUCTURE AND CONTENT OF THE DISCIPLINE (MODULE)						
Activity code	Name of sections and topics /type of lesson/	Semester/Course	Hours	Competitions	Literature	Note
	<b>Section 1. Injuries are a social problem. Orthopedics. History of development. General principles and methods of treating injuries and diseases of the musculoskeletal</b>					
1.1	Injuries are a social problem. Orthopedics. History of development. General principles and methods of treatment of injuries and diseases of the	8	2	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
	<b>Section 2. Methods for examining patients in traumatology and orthopedics Methods for examining patients in traumatology and orthopedics</b>					
2.1	Methods for examining patients in traumatology and orthopedics /Lek/	8	2	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
2.2	Methods for examining patients in traumatology and orthopedics /Etc/	8	4	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
2.3	Methods for examining patients in traumatology and orthopedics /Wed/	8	4	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
	<b>Section 3. Bone tissue regeneration. Ununited fractures and false joints. Methods of their treatment.</b>					
3.1	Bone tissue regeneration. Ununited fractures and false joints. Methods of their treatment. /Lek/	8	2	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.2 L2.5 E1 E2 E3 E4	
3.2	Bone tissue regeneration. Ununited fractures and false joints. Methods of their treatment. /Etc/	8	4	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.2 L2.5 E1 E2 E3 E4	
3.3	Bone tissue regeneration. Ununited fractures and false joints. Methods of their treatment. /Wed/	8	4	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.2 L2.5 E1 E2 E3 E4	
	<b>Section 4. Plaster technique, types of plaster casts.</b>					
4.1	Plaster technique, types of plaster casts. /Etc/	8	4	OC-1 GPC- 9 PC-5 PC- 6 PC-8 PC- 9	L1.2 L1.3L2.2 L2.5 E1 E2 E3 E4	

4.2	Plaster technique, types of plaster casts. /Wed/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.2 L1.3L2.5 E1 E2 E3 E4	
	<b>Section 5. Classification, clinic, diagnosis of bone fractures. Patient supervision.</b>					
5.1	Classification, clinic, diagnosis of bone fractures. Patient supervision. /Etc/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.3L2.5 E1 E2 E3 E4	
5.2	Classification, clinic, diagnosis of bone fractures. /Wed/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.3L2.5 E1 E2 E3 E4	
	<b>Section 6. Damage to the collarbone, shoulder girdle, shoulder, traumatic dislocation of the shoulder.</b>					
6.1	Damage to the collarbone, shoulder girdle, shoulder, traumatic dislocation of the shoulder /Lek/	8	2	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.3L2.5 E1 E2 E3 E4	
6.2	Damage to the collarbone, shoulder girdle, shoulder, traumatic dislocation of the shoulder. /Etc/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.3L2.5 E1 E2 E3 E4	
	<b>Section 7. Conservative and surgical methods of treatment of the upper shoulder girdle (clavicle, scapula). Chest injury</b>					
7.1	Conservative and surgical methods of treatment of the upper shoulder girdle (clavicle, scapula). /Etc/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
7.2	Damage to the chest /Pr/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
7.3	Conservative and surgical methods of treatment of the upper shoulder girdle (clavicle, scapula). /Wed/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
7.4	Damage to the chest / Wed /	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
	<b>Section 8. Fractures of the bones of the upper limb</b>					
8.1	Fractures of the bones of the upper limb /Lek/	8	2	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	E1 E2 E3 E4	
8.2	Fractures of the bones of the upper limb /Pr/	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.2L2.5 E1 E2 E3 E4	
8.3	Fractures of the bones of the upper limb / Wed /	8	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.2L2.5 E1 E2 E3 E4	
	<b>Section 9. Spinal injuries. Fractures of the pelvic bones.</b>					

9.1	Spinal injuries. Fractures of the pelvic bones. /Lek/	8	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
9.2	Spinal injuries. Fractures of the pelvic bones. /Etc/	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
9.3	Spinal injuries. Fractures of the pelvic bones. /Wed/	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
<b>Section 10. Fractures of the lower leg bones. Transosseous compression-distraction osteosynthesis according to Ilizarov in the treatment of</b>						
10.1	Fractures of the leg bones. Transosseous compression-distraction osteosynthesis according to Ilizarov in the treatment of fractures /Lek/	8	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
10.2	Fractures of the leg bones. Transosseous compression-distraction osteosynthesis according to Ilizarov in the treatment of fractures /Pr/	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
10.3	Fractures of the leg bones. Transosseous compression-distraction osteosynthesis according to Ilizarov in the treatment of fractures /Cp/	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
<b>Section 11. Fractures of the lower limb. Damage to the knee joint, fractures of the shin bones. Diagnosis, treatment.</b>						
11.1	Fractures of the lower limb. Damage to the knee joint, fractures of the shin bones. Diagnosis, treatment. /Lek/	8	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
11.2	Fractures of the lower limb. Damage to the knee joint, fractures of the shin bones. Diagnosis, treatment. /Etc/	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
11.3	Fractures of the lower limb. Damage to the knee joint, fractures of the shin bones. Diagnosis, treatment. /Wed/	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
<b>Section 12. Final lesson (test)</b>						
12.1	Final lesson (test) /Pr/ Control work	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	Control work
12.2	CREDIT	8	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	Oral questioning and situational tasks
<b>Section 13. Traumatic brain injury. Peripheral nerve damage</b>						
13.1	Traumatic brain injury. Damage to peripheral nerves /Lek/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
13.2	Traumatic brain injury. Damage to peripheral nerves /Pr/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	

13.3	Traumatic brain injury. Peripheral nerve damage /CP/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
13.4	Traumatic brain injury. Damage to peripheral nerves /Control work./	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	E1 E2 E3 E4	
<b>Section 14. Polytrauma</b>						
14.1	Polytrauma /Lek/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
14.2	Polytrauma /Pr/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
14.3	Polytrauma /Wed/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
14.4	Polytrauma /Control work/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	E1 E2 E3 E4	
<b>Section 15. Damage to the ankle and foot, ankle fractures. Treatment and rehabilitation of trauma patients in the clinic</b>						
15.1	Damage to the ankle and foot, ankle fractures. Treatment and rehabilitation of trauma patients in the clinic /Pr/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
15.2	Damage to the ankle and foot, ankle fractures. Treatment and rehabilitation of trauma patients in the clinic /Wed/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.5 E1 E2 E3 E4	
15.3	Damage to the ankle and foot, ankle fractures. Treatment and rehabilitation of trauma patients in the clinic /Controller/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	E1 E2 E3 E4	
<b>Section 16. Degenerative-dystrophic diseases of the musculoskeletal system. Deforming arthrosis of large joints.</b>						
16.1	Degenerative-dystrophic diseases of the musculoskeletal system. Deforming arthrosis of large joints. /Lek/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.3 L2.5 E1 E2 E3 E4	
16.2	Degenerative-dystrophic diseases of the musculoskeletal system. Deforming arthrosis of large joints. /Etc/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.3 L2.5 E1 E2 E3 E4	
16.3	Degenerative-dystrophic diseases of the musculoskeletal system. Deforming arthrosis of large joints. /Wed/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.3L2.3 L2.5 E1 E2 E3 E4	



16.4	Degenerative-dystrophic diseases of the musculoskeletal system. Deforming arthrosis of large joints. /Control work./	9	3	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	E1 E2 E3 E4	
	<b>Section 17. Bone tumors.</b>					
17.1	Bone tumors. /Wed/	9	2	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.3 E1 E2 E3 E4	
17.2	Bone tumors. /Control work./	9	3	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	E1 E2 E3 E4	
17.3	Bone tumors. /Etc/	9	3	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.3 E1 E2 E3 E4	
	<b>Section 18. Treatment and rehabilitation of traumatological and orthopedic patients on an outpatient basis. Therapeutic exercise, physiotherapy</b>					
18.1	Treatment and rehabilitation of traumatological and orthopedic patients on an outpatient basis. Therapeutic exercise, physiotherapy /Etc/	9	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.3 E1 E2 E3 E4	
18.2	Treatment and rehabilitation of traumatological and orthopedic patients on an outpatient basis. Therapeutic exercise, physiotherapy /Wed/	9	3	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.3 E1 E2 E3 E4	
	<b>Section 19. Osteochondrosis of the spine.</b>					
19.1	Osteocondritis of the spine. /Lek/	9	2	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
19.2	Osteocondritis of the spine. /Etc/	9	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
19.3	Osteocondritis of the spine. /Wed/	9	2	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
19.4	Osteocondritis of the spine. /Control work./	9	3	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
	<b>Section 20. Congenital hip dislocation</b>					
20.1	Congenital dislocation of the hip /Lek/	9	2	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
20.2	Congenital dislocation of the hip /Pr/	9	4	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	
20.3	Congenital dislocation of the hip /Cp/	9	3	OC-1 GPC-9 PC-5 PC-6 PC-8 PC-9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	

	<b>Section 21. Congenital clubfoot, torticollis</b>				
21.1	Congenital clubfoot, torticollis /Pr/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
21.2	Congenital clubfoot, torticollis / Wed /	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
	<b>Section 22. Hereditary systemic diseases of the skeleton. Dysplasia, chondrodystrophy. Treatment</b>				
22.1	Hereditary systemic diseases of the skeleton. Dysplasia, chondrodystrophy. Treatment /Lek/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
22.2	Hereditary systemic diseases of the skeleton. Dysplasia, chondrodystrophy. Treatment /Pr/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
22.3	Hereditary systemic diseases of the skeleton. Dysplasia, chondrodystrophy. Treatment /Wed/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
	<b>Section 23. Osteochondropathies (Legg-Calvé-Perthes disease, Osgood-Schlatter disease, Scheuermannau disease) and others</b>				
23.1	Osteochondropathies (Legg-Calvé-Perthes disease, Osgood-Schlatter disease, Scheuermannau disease) and others /Pr/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
23.2	Osteochondropathies (Legg-Calvé-Perthes disease, Osgood-Schlatter disease, Scheuermannau disease) and others / Wed /	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
	<b>Section 24. Scoliotic disease.</b>				
24.1	Scoliotic disease. /Lek/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
24.2	Scoliotic disease. /Etc/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
24.3	Scoliotic disease. /Wed/	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
	<b>Section 25. Infantile central palsy.</b>				
25.1	Infantile central palsy. /Lek/	9	2	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4
25.2	Infantile central palsy. /Etc/	9	4	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2 L2.5 L3.1L3.2 E1 E2 E3 E4
	<b>Section 26. Final lesson (test)</b>				

26.1	Control work	9	3	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2L2.5 L3.1L3.2 E1 E2 E3 E4	Control work
26.2	Exam/	9	27	OC-1 GPC-9 PC-5 PC- 6 PC-8 PC- 9	L1.1 L1.2 L1.3 L2.1 L2.2 L2.5 L3.1L3.2 E1 E2 E3 E4	Oral questioning, situational task.

## 5. ASSESSMENT TOOLS

### 5.1. Assessment materials for ongoing monitoring and intermediate certification

Presented as a separate document

### 5.2. Diagnostic Testing Assessment Materials

Presented as a separate document

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

### 6.1. Recommended reading

#### 6.1.1. Main literature

	Authors, compilers	Title	Publisher, year	Quantity
L1.1	Peterson S.B.	Oncology: Grif of the Ministry of Education and Science of Russia. Recommended by the State Educational Institution of Higher Professional Education "Moscow Medical Academy named after I.M. Sechenov" as a textbook for students studying in institutions of higher professional education in the specialty 060101.65 "General Medicine", 060105.65 "Medical and Preventive Care" and 060103.65 "Pediatrics" in the discipline	Moscow: GEOTAR-Media, 2014, Electronic resource	1
L1.2	Kornilov N.V., Gryaznukhin E.G., Shapiro K.I., Kornilov N.N., Ostashko V.I., Redko K.G., Lomaya M.P.	Traumatology and orthopedics	Moscow: GEOTAR-Media, 2014, Electronic resource	1
L1.3		Traumatology and orthopedics: textbook	Moscow: GEOTAR-Media, 2018, Electronic resource	1

#### 6.1.2. additional literature

	Authors, compilers	Title	Publisher, year	Quantity
L2.1	Sampiev M. T.	Surgical treatment of scoliosis in adults using a rod endocorrector LSZ-3 / Bulletin of the Russian Scientific Center of Radiology, No. 12, 2011	Moscow: Federal State Budgetary Institution "Russian Scientific Center for X-ray Radiologist II" of the Ministry of Health of the Russian Federation, 2011, Electronic resource	1
L2.2	Zhidkova O. I.	Traumatology and orthopedics: Textbook	Saratov: Scientific book, 2012, Electronic resource	1

	Authors, compilers	Title	Publisher, year	Quantity
L2.3	Okorokov A. N., Bazeko N. P.	Deforming osteoarthritis	Moscow: Medical literature, 2018, Electronic resource	1
L2.4	Tarasenko L. L., Zaveraylo L. L.	Objective methods for studying foot deformities: educational and methodological manual	Surgut: Surgut State University, 2016, Electronic resource	2
L2.5	Kolomiets A. A., Raspopova E. A.	Traumatology and orthopedics: Textbook for universities	Moscow: Urayt, 2020, Electronic resource	1

### 6.1.3. Methodological developments

	Authors, compilers	Title	Publisher, year	Quantity
L3.1	Smertina L.P.	Neurological complications of osteochondrosis: educational and methodological manual	Surgut: Surgut Publishing Center, 2014	176
L3.2	Nemkova S. A., Namazova-Baranova L. S., Maslova O. I., Zavadenko N. N., Kholin A. A., Karkashadze G. A., Mamedyarov A. M., Nesterovsky Yu. E., Govorun S.V.	Cerebral palsy. Diagnosis and correction of cognitive impairment: Educational manual	Moscow: Pediatr, 2012, Electronic resource	1

### 6.2. List of resources of the information and telecommunication network "Internet"

E1	Association of Traumatologists and Orthopedists
E2	JSC Trauma
E3	AO Foundation Surgery Reference
E4	Rubricator KR

### 6.3.1 List of software

6.3.1.1	Microsoft operating systems, Microsoft Office application package
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### 6.3.2 List of information help systems

6.3.2.1	Information and legal portal Garant.ru <a href="http://www.garant.ru">http://www.garant.ru</a>
6.3.2.2	Legal reference system Consultant plus <a href="http://www.consultant.ru">http://www.consultant.ru</a>

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

7.1	Classrooms for lectures are equipped with: multimedia projector, screen, laptop, stationary chalk board, standard classroom furniture: tables, chairs
7.2	Practical classes, group and individual consultations, ongoing monitoring and intermediate certification are conducted in the classrooms of the Department of Faculty Surgery, Surgut. st. Nefteyuganskoe highway, 20, building of the children's clinic of the Khanty-Mansi Autonomous Okrug-Ugra "SKTB"
7.3	Premises of the Khanty-Mansi Autonomous Okrug-Yugra "Surgut Clinical Trauma Hospital": a training room in the building of a children's clinic, equipped with the necessary specialized educational furniture and technical means for providing educational information to students, equipped with seats, tables, a blackboard and chalk; equipped with a multimedia projector (1), computer (1).
7.4	Tables, posters, diagrams, drawings, multimedia slides
7.5	1. Physiological axis of the lower limb.

7.6	2. Briand triangle, Roser-Nelaton line
7.7	3. Neutral zero position method.
7.8	4. Measurement of movements in the limbs.
7.9	5. Measuring muscle strength.
7.10	6. Types of displacement
7.11	7. Skiogram of the child's elbow joint
7.12	8. Classification of mechanical damage
7.13	9. Classification of open fractures according to Markova-Kaplan
7.14	10. Average time of immobilization of working capacity for fractures
7.15	11. Average time for healing of tibia fractures.
7.16	12. Fractures of the radius in a typical location.
7.17	13. Fractures of the humerus.
7.18	14. Ankle fractures.
7.19	15. Hip dislocations.
7.20	16. Dislocation of the lower leg.
7.21	17. Shoulder dislocation.
7.22	18. Cervical vertebrae.
7.23	19. Thoracolumbar vertebrae.
7.24	20. Scoliosis.
7.25	21. Shock, blood loss, blood transfusion.
7.26	22. Tables by segments.
7.27	List of educational radiographs (R):
7.28	No. Title of the topic.
7.29	1. Methodology for examining a trauma patient.
7.30	2. Damage to the upper shoulder girdle.
7.31	3. Shoulder injury, shoulder dislocation.
7.32	4. Damage to the elbow joint. Dislocation.
7.33	5. Damage to the bones of the forearm, the ray is in a typical place.
7.34	6. Damage to the hand.
7.35	7. Damage to the cervical spine.
7.36	8. Damage to the thoracic and lumbar spine.
7.37	9. Damage to the chest.
7.38	10. Damage to the pelvic bones.
7.39	11. Fractures of the femur.
7.40	12. Fractures of the shin bones, ankles.
7.41	13. Fractures of the bones of the feet.
7.42	14. Congenital dislocation of the hip.
7.43	15. Osteochondropathies.
7.44	16. Bone tumors.
7.45	17. False joints.
7.46	18. Chronic osteomyelitis.
7.47	19. Osteoporosis.
7.48	20. Hereditary malformations
7.49	Surgical instruments used in traumatology and orthopedics, a set of Ilizarov apparatus.
7.50	Practical Skills Center Simulation Center MI SurSU
7.51	Address: Surgut st. Power engineers – 22
7.52	Auditoriums of the MI simulation center, equipped with phantom and simulation equipment, laboratory instruments and consumables in sufficient quantities
7.53	BenQ Multimedia Projector
7.54	MegaCodeKid manikin – (7-year-old child for resuscitation, with the possibility of defibrillation and cardiac stimulation)
7.55	BabyAnn – (newborn. Foreign body of the larynx)

7.56	Dummy for practicing practical CPR skills ResusciBaby
7.57	Mannequin for practicing practical CPR skills ResusciJunior
7.58	NursingKid mannequin – (a 7-year-old child with variable physiology for practicing diagnostic and treatment measures)
7.59	Digital cardiac and pulmonary auscultation manikin Z990.
7.60	Digital mannequin simulator of auscultation of the heart and lungs UN/DGN-V.
7.61	Defibrillator Zoll
7.62	Intubation head simulator.
7.63	A simulator for performing subcutaneous and intramuscular injections.
7.64	Simulator for intravenous injections.
7.65	Simulator Nursingkid, Nursingbaby.
7.66	Tonometer, phonendoscope.
7.67	Electrocardiograph electrodes.
7.68	AMBU bag with a set of face masks.
7.69	Oxygen mask
7.70	Intubation kit
7.71	Endotracheal tube set
7.72	Infusion system
7.73	Set of syringes Syringes 2.0ml 5.0ml 10.0ml
7.74	Cubital catheters
7.75	Fixing patch
7.76	Drug simulants
7.77	Aspirator
7.78	Laryngeal mask
7.79	Air compressor
7.80	Vacuum aspirator
7.81	Lineomat
7.82	Ventilator
7.83	Gastric tube
7.84	Nasogastric tube
7.85	An enema simulator. Esmarch's irrigator
7.86	Dressings
7.87	Medical trays.
7.88	Medical furniture.
7.89	Library of laboratory and instrumental research results
7.90	Roles for standardized patients
7.91	Library of situational problems
7.92	Library of clinical scenarios
7.93	Library of score sheets
7.94	Operating room, dressing room, examination room in the emergency department, wards, intensive care wards, conference
7.95	Equipment:
7.96	The premises of this institution, intended for the provision of medical care to patients, including those associated with medical interventions, are equipped with specialized equipment and (or) medical products (tonometer, stethoscope, phonendoscope, thermometer, medical scales, stadiometer, anti-shock kit, emergency kit and equipment preventive and therapeutic measures, electrocardiograph, bactericidal irradiator, equipment for determining blood group and Rh factor with reagents, gastroscope with a biopsy kit, colonoscope with a biopsy kit, rectosigmoidoscope with a biopsy kit, cystoscope with a biopsy kit, ultrasound diagnostic device, anesthesia-respiratory apparatus, artificial lung ventilation apparatus, infusion pump, postoperative suction pump, defibrillator with synchronization function, apparatus for monitoring basic functional indicators, respiratory mixture analyzer, electroencephalograph, defibrillator with synchronization function, apparatus for continuous plasmapheresis, apparatus for hemodialysis and blood ultrafiltration) and consumables in quantities that allow students to master the skills required by their professional activities individually, as well as other equipment necessary for the implementation of the training program in disaster medicine.