APPROVED BY
by the decision of the Academic Council of the USU
Institute of Medicine, Ecologi and Physical Culture
16.05.2024 г., Record No №9/260

Chairman Mashin V.V. _____
(Signature, Name)
«16» May 2024.

EDUCATIONAL PLAN

Discipline	Traumatology, Orthopedics
Faculty	Medical faculty of T.Z. Biktimirov
Name of department	Hospital surgery, anesthesiology, urology, traumatology and orthopedics
Course	5

Direction (specialty) 31,05.01 General medicine
the code of the direction (specialty), foil name
Form of training: full-time
Date of introduction into the academic process at USU «01» September 2024

Revised at the Department meeting, Record No _____ of _____ _____ 2024
Revised at the Department meeting, Record No _____ of _____ _____ 202__
Revised at the Department meeting, Record No _____ of _____ _____ 202__
Revised at the Department meeting, Record No _____ of _____ _____ 202__
Revised at the Department meeting, Record No _____ of _____ _____ 202__

Information about the authors:

Initials	Abbreviation of the department	Degree, scientificrank
Shevalaev Gennady Alekseevich	Hospital surgery, anesthesiology, resuscitation, urology, traumatology and orthopedics	Doctor of Medical Sciences, Professor of the Department, Associate Professor

Agreed	Agreed
Head of department of hospital surgery, anesthesiology, resuscitation, urology, traumatology and orthopedics, developing A discipline	Head of the graduating Department of Hospital Therapy
_____/V.I. Midlenko/ *Signature* *Full name* «16» May 2024 г.	_____/M.A. Vize-Khripunova *Signature* *Full name* «16» May 2024 г.

1. GOALS AND OBJECTIVES OF THE DISCIPLINE DEVELOPMENT:

Objectives of mastering the discipline: the main purpose of teaching traumatology, orthopedics is to teach students the modern provisions of the theoretical and practical sections of traumatology, orthopedics. To gain knowledge on etiology, pathogenesis, diagnosis, clinical picture of injuries and diseases of the musculoskeletal system, methods of their treatment and prevention.

Objectives of mastering the discipline:
1. Assimilation by students of all questions of the program of traumatology, orthopedics, based on the knowledge gained in other departments.
2. Development of students' clinical thinking, improvement of methods of differential diagnosis.
3. Teaching students on the prevention of injuries and orthopedic diseases, the organization of traumatological and orthopedic care in the Russian Federation.
4. Mastering by students of the basic principles of diagnostics and methods
treatment of patients with injuries and diseases of the musculoskeletal system.
5. To develop students' scientific understanding of the relationship between the structure, function of organs and the human system, depending on environmental conditions.
6. To educate ethical standards of conduct in the clinic, respect for colleagues and patients.

2. PLACE OF DISCIPLINE IN THE STRUCTURE OF OPOP:

The discipline "Traumatology, Orthopedics" belongs to the basic part of the Curriculum for the specialty 31.05.01 General Medicine.
Mastering the discipline is based on knowledge, skills and abilities formed by previous disciplines and practices: philosophy, history of medicine, bioethics, psychology and pedagogy, Latin language, physics, mathematics, medical informatics, chemistry, biology, biochemistry, human anatomy, histology, embryology, cytology, normal physiology, pathological physiology, hygiene, microbiology, virology, immunology, pharmacology, general surgery, radiation diagnostics, infectious diseases, propedeutics of internal diseases, hospital therapy, faculty pediatrics, endocrinology, obstetrics and gynecology, neurology, medical genetics and neurosurgery, public health and healthcare organization, topographic anatomy and operative surgery, anesthesiology, resuscitation and intensive care, faculty surgery, urology, training practice "Nursing".

3. LIST OF PLANNED DISCIPLINE LEARNING OUTCOMES CORRELATED TO THE PLANNED OUTCOMES OF THE MAIN PROFESSIONAL EDUCATIONAL PROGRAM

The list of competencies formed in the process of mastering the material in the discipline, indicating the code and name of the competencies, correlated with the indicators of achievement of each competence established by the RAP developer separately in accordance with the Federal State Educational Standard of Higher Education.

Code and name exercised competence	List of planned learning outcomes for discipline (module), correlated with indicators of achievement of competencies
OPK-4. Ability to use medical devices provided for by the procedure for the provision of medical care, as well as to conduct patient examinations in order to establish a diagnosis	ID-1 OPK4 Know: the basics of the legislation of the Russian Federation on the protection of public health, the main regulatory and technical documents; basic principles of management and organization of medical care to the population; organization of medical control over the state of health of the population, issues of examination of disability and medical and legal assistance to the population; etiology, pathogenesis and preventive measures for the most common diseases; modern classification of injuries and diseases of the musculoskeletal system; clinical picture, characteristics of the course and possible complications of the most common diseases and injuries of the musculoskeletal system in different age groups; diagnostic methods, diagnostic capabilities of methods of direct examination of a patient of traumatological and orthopedic profile, modern methods of clinical, laboratory instrumental examination of patients (including endoscopic, radiological methods of ultrasound diagnostics); clinical and pharmacological characteristics of the main groups of drugs and the rational choice of specific drugs in the treatment of the main pathological syndromes of diseases and emergency conditions in patients, including the basics of anti-doping legislation; procedures for the provision of medical care for major diseases and injuries of the musculoskeletal system. ИД-2 ОПК4 Be able to: plan, analyze and evaluate the quality of medical care, determine the status of the patient: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, blood pressure measurement, determination of the properties of the arterial pulse, etc.) .); assess the patient's condition in order to make a decision on the need to provide him with medical care; to conduct a primary examination of systems and organs: musculoskeletal, nervous, endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs, digestive, urinary, reproductive, eyes, ear, throat, nose; to set priorities for solving the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with chronic disease, condition with infectious disease, disability, geriatric problems; to make a preliminary diagnosis - to synthesize information about the patient in order to determine the pathology and the reasons that cause it; outline the volume of additional studies in accordance with the prognosis of the disease, for clarification diagnosis and obtaining a sufficient result; formulate a clinical diagnosis; develop a plan of therapeutic (surgical) actions, taking into account the course of

	the disease and its treatment; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, substantiate pharmacotherapy in a particular patient with major pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment; apply various methods of drug administration. ID-3 OPK4 Possess: Possess the methods of using medical devices in the diagnosis and treatment of therapeutic patients diagnosis and obtaining a sufficient result; formulate a clinical diagnosis; develop a plan of therapeutic (surgical) actions, taking into account the course of the disease and its treatment; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, substantiate pharmacotherapy in a particular patient with major pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment; apply various methods of drug administration. ID-3 OPK4 Possess: Possess the methods of using medical devices in the diagnosis and treatment of therapeutic patients
PC-2 Readiness to collect and analyze patient complaints, data from his anamnesis, examination results, laboratory, instrumental, pathological and anatomical and other studies in order to recognize a condition or establish the presence or absence of a disease	Know: diagnostic methods, diagnostic capabilities of methods of direct examination of a patient of a therapeutic, surgical and obstetric-gynecological profile; modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic, radiological methods, ultrasound diagnostics). Be able to: determine the patient's status: collect anamnesis, interview the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation); to conduct a primary examination of systems and organs: respiratory, cardiovascular, blood and hematopoietic organs, digestive, endocrine and urinary; outline the volume of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result. Own: methods of general clinical objective examination (questioning, examination, palpation, percussio) with diseases of internal organs; interpretation of the results of laboratory, instrumental diagnostic methods for pathology of internal organs, musculoskeletal system.

4. TOTAL EMPLOYMENT OF THE DISCIPLINE

4.1. Discipline volume in credit units (total) ____3_____

4.2. Discipline volume by type of academic work (in hours) 108

For each form of study: full-time / part-time / part-time, a separate table is filled in.

Type of educational work	Number of hours (full-time education)	
	Total according to plan	Incl. by semester 9 – 10 semester
1	2	3
Contact work of students with the teacher in accordance with the UP	58	58/58*
Auditory lessons:	58	58/58*
• Лекции (в т.ч.____ПрП)*	18	18/18*
• семинары и практические занятия (в т.ч.___ ПрП)*	40	40/40*
• лабораторные работы, практикумы (в т.ч.___ ПрП)*	Not provided	Not provided
Independent work	14	14/14*
The form of the current control of knowledge and control of independent work: testing, counter. work, colloquium, abstract, etc. (at least 2 types)		
Course work	Not provided	Not provided
Types of intermediate certification (exam, test)	36	36/36*
Total hours by discipline	108	108/108*

If it is necessary to use partially / exclusively distance educational technologies in the educational process, in the table, through a slash, the number of hours of work of teaching staff with students for conducting classes in a distance format using e-learning is indicated.

** The hours of the PR for the discipline are indicated in accordance with the UP, if the discipline provides for the implementation of certain elements of work related to the future professional activities of students.*

4.3. The content of the discipline. Distribution of hours by topics and types of educational work:

Full-time form of education

Title of sections and topics	Total	Types of training sessions					Knowledge monitoring form
		Auditory lessons			Busy in the inter-assets noah form	Independent work	
		Lectures	Practice. classes, seminars	Laboratory works, workshops			
1	2	3	4	5	6	7	
Section 1. General issues of traumatology, orthopedics							
Topic 1. Introduction to traumatology, orthopedics. Research and treatment methods.	3	1	1			1	Counter. questions
Topic 2. Methods of treatment in traumatology and orthopedics.	3	1	1			1	
	6	2	2			2	
Раздел 2. Травматология							
Topic 3. Injuries of the upper and lower limbs	13	2	8		1	2	Counter. questions, tests, tasks, essay
Topic 4. Injuries to the chest, pelvis and spine	13	4	6		1	2	Counter. questions, tests, tasks, essay
Topic 5. Multiple and combined injuries. Traumatic illness	6	2	2			2	Counter. questions, tests, tasks, essay
	32	8	16		2	6	
Раздел 3. Ортопедия							
Topic 6. Congenital deformities of the osteoarticular apparatus. Spine deformities	10	2	4		2	2	Counter. questions, tests, tasks, essay
Topic 7. Osteochondropathy. Systemic diseases and skeletal deformities.	13	2	6		3	2	Counter. questions, tests, tasks,

Deforming osteoarthritis. Osteocondritis of the spine							essay
Topic 8. Bone tumors. Diseases and deformities of the feet. Spastic and flaccid paralysis	8	2	2		2	2	Counter. questions, tests, tasks, essay
	31	6	12		7	6	
Section 4. Questions of rehabilitation and medical examination							
Topic 9. Rehabilitation of patients with injuries and diseases of ODA	2	1	1				, Counter. questions, tests, tasks, essay
Topic 10. Questions of medical certification vania	1	1					Counter. questions, tests, tasks, essay
	3	2	1				
	72						
Intermediate certification	36						Exam
Total	108	18	31	-	9	14	

5. CONTENT OF THE DISCILINE

Section 1. General issues of traumatology, orthopedics

Topic 1. Introduction to traumatology, orthopedics. Research methods

Symptomatology and semiotics of trauma patients. Survey methods. Acquaintance with the clinic. General bypassing trauma patients. Anamnesis, examination, palpation, percussion, determination of function. X-ray diagnostics. Measurement of length, circumference and muscle strength. Acquaintance with the toolkit. The beginning of the supervision of patients.

Topic 2. Methods of treatment in traumatology, orthopedics

Plaster equipment and plaster bandages, quality control of plaster, rules for imposing medical immobilization. Skeletal traction, indications, spokes locations, rules. Possible complications. Closed reduction, principles, indications.

Classification of operations on bones and joints. Indications and contraindications for the surgical method of treatment. Types of skin grafting. Types of structures and devices for osteosynthesis, possible complications. Modern types of osteosynthesis.

Section 2. Traumatology

Topic 3. Injuries of the upper and lower limbs

Classification, clinical picture and diagnosis of fractures of the proximal and distal ends of the shoulder. Diaphyseal fractures of the shoulder. Clinical picture and diagnosis of forearm fractures. X-ray diagnostics, treatment of fractures of the bones of the hand. Diagnosis of tendon injuries. Methods of tendon plastics. Terms of immobilization. Modern apparatus methods of rehabilitation. Orthoses and prostheses for upper limb injuries. Orthopedic products used in the rehabilitation process. Methods of physiotherapy, massage, exercise therapy.

Classification, diagnosis and treatment of fractures of the proximal femur. Classification, diagnosis and treatment of femoral shaft fractures. Classification, clinic, diagnosis and treatment methods intra-articular injuries of the knee joint. Terms of immobilization and disability. Clinic, X-ray diagnostics, methods of treating fractures of the lower leg, ankle joint and foot. Terms of immobilization and disability, possible complications. Modern apparatus methods of rehabilitation. Orthoses and prostheses for injuries of the lower limb. Orthopedic products used in the rehabilitation process. Methods of physiotherapy, massage, exercise therapy.

Topic 4. Injuries to the chest.

Classification, clinical presentation, diagnosis of fractures of the clavicle, scapula, sternum and ribs and their treatment. Technique of novocaine blockades. Pleural puncture technique, Bullau drainage. Treatment of complications of rib fractures. Modern methods of rehabilitation for damage to the rib cage. Corset therapy. Methods of physiotherapy, massage, exercise therapy. Classification, clinic, diagnosis of injuries. The main methods of treatment for fractures of the spine and pelvis. Types of novocaine blockades, according to Shnek, Shkolnikov-Selivanov-Tsodyks. Modern apparatus methods of rehabilitation. Orthopedic products used in the rehabilitation process. Corset therapy. Methods of physiotherapy, massage, exercise therapy.

Topic 5. Multiple and combined injuries. Traumatic illness.

Classification of concomitant injury. Features of diagnostics of multiple and concomitant trauma. Traumatic illness. Combined injuries of the spine and pelvis. Combined injuries of the chest, pelvis and long bones of the lower extremities. Basic principles of rehabilitation treatment for severe concomitant injury.

Section 3. Orthopedics

Topic 6. Orthopedics. Congenital deformities of the osteoarticular apparatus. Spinal deformities.

Indications for amputation, types of amputations, methods. Classification. Prosthetics of the upper and lower extremities using orthopedic devices. Express prosthetics, indications. Types of orthopedic products. Endoprosthetics of joints. Indications and contraindications. Types of

endoprostheses. Congenital hip dislocation, congenital muscle torticollis, pterygoid scapula, amniotic constrictions. Polydactyly, syndactyly. Treatment. Kyphosis, clinic, diagnostics, treatment methods. Scoliosis, classification, clinical picture, diagnosis. Conservative treatment methods. Methods of surgical treatment of scoliosis. Amputation and prosthetics. Modern apparatus methods of rehabilitation for congenital pathology. Orthopedic products used in the rehabilitation process. Corset therapy. Methods of physiotherapy, massage, exercise therapy.

Topic 7. Osteochondropathy. Systemic diseases and skeletal deformities. Deforming osteoarthritis. Osteocondritis of the spine.

Etiology, classification, clinical picture and diagnosis of osteochondropathy. Methods of conservative and surgical treatment. Classification, clinical picture, diagnosis and treatment of chondrodystrophy, dyschondroplasia, arthrogripposis, fibrous osteodysplasia, imperfect bone formation, endocrine and alimentary osteodystrophies. Etiology, classification, clinical picture and diagnosis of osteochondropathy. Methods of conservative and surgical treatment. Modern apparatus methods of rehabilitation for congenital pathology. Orthopedic products used in the rehabilitation process. Methods of physiotherapy, massage, exercise therapy.

Topic 8. Bone tumors. Diseases and deformities of the feet. Spasmodic and flaccid paralysis.

Classification, clinical picture, diagnosis and treatment of tumor-like formations of bone, cartilaginous and soft tissue genesis. Principles of the treatment of bone tumors. Bone grafting. The use of modern biocomposite materials for the treatment of pathologies of the osteoarticular system. Flat feet, types, methods of diagnosis and treatment. Hallux valgus, hammer toes, types of surgical treatment. Diagnostics and prevention of paralytic deformities of the upper and lower extremities. Orthopedic support for foot deformities. Methods of surgical and conservative treatment and correction of lower limb deformities in cerebral palsy. Modern apparatus methods of rehabilitation for spastic paralysis. Orthopedic products used in the rehabilitation process. Methods of physiotherapy, massage, exercise therapy.

Section 4. Questions of rehabilitation and medical examination

Topic 9. Rehabilitation of patients with injuries and diseases of ODA

Basic principles of treatment and rehabilitation of traumatological and orthopedic patients on an outpatient basis (trauma center). Familiarization of students with the peculiarities of the work of the trauma center. To practice the skills of differential diagnosis and treatment of injuries of the musculoskeletal system on an outpatient basis. Possible terms of treatment of patients with the consequences of trauma. Indications for inpatient treatment. Modern apparatus methods of rehabilitation. Orthopedic products used in the rehabilitation process. Corset therapy. Methods of physiotherapy, massage, exercise therapy. Mechanotherapy. Modern apparatus methods of rehabilitation.

Topic 10. Questions of medical examination

Criteria for determining the work capacity for typical orthopedic diseases and the consequences of trauma. The procedure for referral to VTEK. Spa treatment of patients with orthopedic diseases and the consequences of trauma. Principles of professional, social and medical rehabilitation of patients.

6. TOPICS OF PRACTICAL AND SEMINAR LESSONS

Lesson plan:
1. Introductory speech of the teacher - 30 min
2. Interviewing students on the topic - 60 min
3. Patient supervision - 30 min
4. Analysis of patients in the clinic - 60 min
5. Independent work of students - 60 min
6. Resume of the teacher, answers to questions and tasks for the next lesson - 30 minutes

Section 1. General issues of traumatology, orthopedics

Topic 1. Introduction to traumatology, orthopedics. Research methods

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. What bone protrusions are used when measuring the length of the limbs
2. What is true (anatomical) limb shortening?
3. Methods for determining the axis of the limbs, spine.
4. Methods for determining the range of motion in the joints. Types of contractures.
5. Methods for measuring the length and circumference of the limbs.
6. Types of limb shortening, methods of their definition.

Questions on the topic of the lesson for independent work:

1. Reliable and probable signs of diseases and injuries of the joints
2. Special methods of examination of trauma and orthopedic patients.
3. Paraclinical methods in traumatology and orthopedics. Indications for their use.
4. Basic principles of fracture treatment at hospital and prehospital stages of treatment.
5. Peculiarities of treatment by the method of skeletal traction.

Control form: questions, test control, situational tasks.

Topic 2. Conservative methods and surgical methods for treating injuries. Organization of rehabilitation for injuries and diseases of the musculoskeletal system

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Methods of conservative treatment.

2. Indications for conservative treatment of fractures.
3. Types of plaster casts.
4. Rules for applying plaster casts, complications.
5. Types of extension treatment.
6. Indications for the method of skeletal traction.
7. Technique of imposing skeletal traction.
8. Indications and contraindications for surgery.
9. Classification of operations on soft tissues.
10. Types of skin grafting, indications.
11. Osteosynthesis. Types of osteosynthesis.
12. Technique of osteosynthesis for fractures of the diaphysis of bones.
13. Concepts of extrafocal compression-distraction osteosynthesis.
14. Delayed consolidation of fractures, pseudoarthrosis.

1. Modern methods of treatment of false joints and delayed consolidation.
2. Types of bone grafting, their place in the treatment of false joints.
3. Compression-distraction osteosynthesis for pseudarthrosis.

Questions on the topic of the lesson for independent work:

1. The most common mistakes and complications in the treatment of fractures.
2. Clinical and radiological signs of nonunions, false joints.
3. Modern principles of surgical treatment of false joints.
4. Compression-distraction method in the treatment of false joints. The device of the Ilizarov, Gudushauri, Volkov apparatus.
5. Modern methods of bone grafting used in the treatment of false joints.
6. Types of bone grafting.

Control form: survey, test control, situational tasks.

Section 2. Traumatology

Topic 3. Injuries of the upper and lower limbs

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Classification of fractures of the proximal metaepiphysis of the humerus.
2. The mechanism of fractures, diagnosis, treatment.
3. Fractures of the diaphysis of the humerus, clinical picture, diagnosis and methods of treatment.
4. Supracondylar and transcondylar fractures of the shoulder, types of displacement.
5. Diagnostics, treatment and possible complications of extensor and flexion supracondylar and transcondylar fractures of the shoulder.
6. Fractures of the shoulder condyles, clinic, treatment.
7. Intra-articular fractures of the distal end of the humerus - classification, diagnosis, treatment.
8. Timing of fusion of fractures of the humerus of various localization.
9. Fractures of the olecranon, coronoid process - the mechanism of injury, diagnosis, indications,

methods of conservative and surgical treatment.
10. Fractures of the head and neck of the radius - the mechanism of damage, clinical picture, diagnosis, treatment.
11. Fractures of the diaphysis of the bones of the forearm, clinical picture, diagnosis and treatment.
12. Fracture - dislocation of the forearm (Montegia, Galezia), clinic, diagnosis and treatment.
13. Fracture of the radius in a typical place (Collis, Smith fracture), clinic, diagnosis, treatment.
14. Fractures of the wrist bones (scaphoid, lunate) - clinical picture, diagnosis, treatment.
15. Dislocations of the wrist bones, clinic, treatment.
16. Damage to the flexor and extensor tendons of the fingers of the hand, clinical picture, diagnosis, types of tendon suture.
17. Methods of tendon plastics.
18. Modern hardware methods of rehabilitation of injuries of the upper limb.
19. Orthoses and prostheses for injuries of the upper limb.
20. Orthopedic products used in the rehabilitation process.
21. Methods of physiotherapy, massage, exercise therapy.
22. Classification of fractures of the femur.
23. Classification of fractures of the proximal femur.
24. Medial fractures of the femoral neck, features of regeneration, diagnosis, clinical picture, complications.
25. Surgical treatment of fractures of the femoral neck (osteosynthesis, endoprosthetics) is the method of choice.
26. Fractures of the trochanteric mass of the femur - diagnosis, conservative and surgical methods of treatment.
27. Fractures of the diaphysis - features of displacement of fragments in fractures at various levels, clinical picture, diagnosis and treatment methods.
28. Fractures of the distal femur.
29. Contusion, hemarthrosis of the knee joint - clinic, diagnosis, treatment.
30. Traumatic dislocations of the patella - clinic, diagnosis, treatment.
31. Fractures of the patella - variants of the fracture and the mechanism of injury, clinical picture, diagnosis, methods of treatment.
32. Fractures of the tibial condyles, diagnosis, treatment.
33. Damage to the menisci and ligamentous apparatus - clinic, diagnosis, treatment.
34. Damage to the soft tissues of the lower leg (muscles, Achilles tendon, nerves, blood vessels). Clinic, diagnostics, treatment.
35. Fractures of the leg bones - the mechanism of damage, Clinical picture, diagnosis, conservative and surgical treatment.
36. Tears of the ankle ligaments. Differential diagnosis, treatment.
37. Fractures of the ankles. Classification, diagnosis, conservative and surgical treatment.
38. Fractures of Desteau, Dupuytren. Diagnostics and treatment.
39. Fracture of the talus, diagnosis, treatment.
40. Dislocation of the foot. Types, diagnostics, treatment.
41. Fracture of the calcaneus. Damage mechanism, diagnosis, treatment.
42. Fractures of the metatarsal bones and phalanges of the fingers.
43. Sprains of the toes.
44. Modern hardware rehabilitation methods.
45. Orthoses and prostheses for injuries of the lower limb.
46. Orthopedic products used in the rehabilitation process.
47. Methods of physiotherapy, massage, exercise therapy.

Questions on the topic of the lesson for independent work:

1. Indications and typical methods of conservative treatment of shoulder fractures.
2. Indications for surgical treatment of shoulder fractures.
3. Rules for the imposition of medical and transport splints in case of shoulder fractures.
4. Timing of shoulder fracture healing and restoration of working capacity.
5. Features of the treatment of patients on an outpatient basis.
6. The mechanism of injury and classification of fractures of the elbow joint, forearm and hand.
7. Signs of complications of the tendons of the elbow joint and forearm (damage to blood vessels, nerves, ischemic contracture of Volkmann).
8. Timing of fusion of the bones of the forearm and hand and the timing of recovery.
9. The mechanism of injury causing a hip fracture of various localization.
10. Absolute and relative signs of hip fractures.
11. The volume of anti-shock measures in case of hip shaft fracture.
12. Rules and technique of transport immobilization for hip fractures.
13. Features of skeletal traction treatment of hip fractures in the upper third, middle and lower third.
14. Features of the management of patients on an outpatient basis.
15. Diagnosis of contusion, hemarthrosis of the knee joint, dislocation of the patella and lower leg.
16. Diagnosis of injuries of the menisci and ligamentous apparatus of the knee joint.
17. Rules for the provision of emergency care for injuries of the knee joint.

Control form: questions, test control, situational tasks.

Topic 4. Injuries to the chest, pelvis and spine

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Classification of chest injuries.
2. Clinic, diagnosis and treatment.
3. Principles of treatment of "fenestrated" fractures of the ribs.
4. Hemopneumothorax. Clinic, diagnosis and treatment.
5. Fractures of the sternum. Clinic, diagnostics, treatment.
6. Damage to the scapula. Classification, diagnosis, treatment.
7. Fractures and dislocations of the clavicle. Diagnostics, treatment. Reposition and immobilization technique.
8. Technique of novocaine blockade for rib fractures.
9. Technique of pleural puncture, Bullau drainage.
10. Treatment of complications of rib fractures.
11. Modern methods of rehabilitation for damage to the rib cage.
12. Corset therapy.
13. Methods of physiotherapy, massage, exercise therapy.
14. Classification of pelvic injuries, the mechanism of various types of damage.
15. Clinical picture of pelvic fractures and their diagnosis.
16. First and first aid for pelvic fractures (amount of help).
17. Fractures of the Malgeny type, principles of treatment.
18. Conservative and surgical methods of treating patients with various types of pelvic fractures.

19. Terms of inpatient and outpatient treatment for pelvic fractures.
20. Classification of spinal injuries.
21. Characteristics of stable and unstable injuries of the spine.
22. Isolated injuries of the supraspinous and interspinous ligaments, fractures of the transverse processes, arches, articular processes - the mechanism of damage, diagnosis, methods of treatment.
23. Fractures of the vertebral body - the mechanism of injury, typical localization of injuries, principles of diagnosis.
24. Methods of treatment of uncomplicated vertebral body fractures.
25. Stabilizing operations on the spine.
26. Diagnosis of complicated spinal injuries.
27. Types of novocaine blockades, according to Shnek, Shkolnikov-Selivanov-Tsodyks.
28. Modern apparatus methods of rehabilitation.
29. Orthopedic products used in the rehabilitation process.
30. Corset therapy.
31. Methods of physiotherapy, massage, exercise therapy.

Questions on the topic of the lesson for independent work:

1. The mechanism of injury and classification of fractures of the ribs, sternum, clavicle, scapula.
2. The main clinical and radiological signs of fractures of the chest bones.
3. Indications and typical methods of conservative treatment of chest fractures.
4. Timing of fusion of fractures of the ribs, sternum.
5. Terms of restoration of working capacity in case of chest injuries.
6. Methods of anesthesia for fractures of vertebral bodies, transverse, spinous processes.
7. The most common methods of treatment of uncomplicated fractures of the vertebral bodies, transverse, spinous processes and injuries of the ligamentous apparatus of the spine.
8. Modern principles of orthopedic treatment of complicated spinal fractures.
9. Measures to prevent the development of pressure ulcers and contractures in patients with complicated spinal fractures.
10. Ways of social and professional rehabilitation of patients with complicated spinal injuries.
11. Features of the treatment of patients with uncomplicated spinal fractures on an outpatient basis.
12. Mechanism of injuries causing pelvic fractures.
13. Measures of emergency medical care for pelvic fractures.
14. The volume of anti-shock measures for fracture of the pelvic bones at the stages of medical care.
15. Principles of differential diagnosis of cavity bleeding and retroperitoneal hematoma.
16. Signs of damage to the bladder and genitourinary system.
17. Features of injuries of the pelvic joints in pathology of childbirth.
18. The main methods of treatment of typical fractures of the pelvic bones.
19. Complications after fractures of the pelvic bones and methods of their prevention.

Control form: questions, test control, situational tasks.

Topic 5. Multiple and combined injuries. Traumatic illness.

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Definition of the concept of "polytrauma".
2. Classification: multiple, combined and combined injuries, their characteristics.
3. Clinical features of polytrauma.
4. The choice of methods of anti-shock therapy in patients with polytrauma.
5. Principles of complex therapy in patients with polytrauma.
6. Characteristics of the treatment period of patients with polytrauma and its tasks.
7. Features of diagnosis, treatment of multiple and concomitant trauma.
8. Traumatic illness.
9. Basic principles of rehabilitation treatment for severe concomitant injury.

Questions on the topic of the lesson for independent work:

1. Possibilities and scope of emergency medical care at the prehospital stage of treatment (at the scene of the accident, in an ambulance car).
2. The nature and sequence of anti-shock therapy in patients with polytrauma.
3. Features of the provision of assistance at the hospital stage of treatment.
4. Concepts and principles of traumatic disease treatment.
5. Outcomes of polytrauma. Terms of restoration of working capacity in patients who have undergone polytrauma.
6. Issues of social, professional rehabilitation of patients who have undergone polytrauma.

Control form: questions, test control, situational tasks.

Section 3. Orthopedics

Topic 6. Orthopedics. Congenital deformities of the osteoarticular apparatus. Spinal deformities.

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Indications for amputation. Legal aspects.
2. Indications for disarticulation.
3. Features of amputation of the upper and lower extremities.
4. Methods of amputation and indications for them.
5. Osteoplastic amputations according to Pirogov.
6. Osteoplastic amputations according to Gritti-Shimanovsky.
7. Guillotine amputation.
8. Vicious stump. Reamputation, Indications.
9. Features of prosthetics of the upper and lower extremities.
10. Express prosthetics. Concept.
11. Types of prostheses and devices.
12. Symptoms of congenital dislocation of the hip in a newborn. Treatment.
13. Symptoms of congenital hip dislocation in children over one year old. Treatment in children under 2 years of age.
14. Indications and methods of conservative and surgical treatment of congenital hip dislocation.

15. Symptom of Trandelenburg, Shemakher, Roser-Nelaton, Shenton, Briand's triangle.
16. Congenital clubfoot, etiology, clinical picture, diagnosis and treatment
17. Symptoms of muscle torticollis.
18. Conservative and surgical treatment of torticollis.
19. Syndactyly, treatment. Polydactyly.
20. Pterygoid scapula. Treatment.
21. Madelung's disease. Treatment.
22. Arthrogrippus. Clinic, diagnosis and treatment.
23. Definition of the terms "posture", "lordosis", "kyphosis", "scoliosis".
24. Types of posture, posture defects.
25. Principles of diagnosis and treatment of posture disorders.
26. Etiology and pathogenesis of scoliotic disease.
27. Classification of scoliosis. Clinic.
28. Basic principles of early recognition of scoliosis (preventive examinations, dynamic observation of children of preschool and school age).
29. Prevention, conservative and surgical methods of scoliosis treatment.
30. Rehabilitation of patients with diseases of the spine.
31. Modern hardware methods of rehabilitation in congenital pathology.
32. Orthopedic products used in the rehabilitation process.
33. Corset therapy.
34. Methods of physiotherapy, massage, exercise therapy.

Questions on the topic of the lesson for independent work:

1. Express prosthetics, its advantages and indications for carrying out.
2. The procedure for referring patients to prosthetic and orthopedic enterprises.
3. Clinic of congenital hip dislocation.
4. Treatment of congenital hip dislocation.
5. Methods of surgical treatment of congenital hip dislocation.
6. Clinic and treatment of congenital torticollis.
7. Diagnosis and treatment of syndactyly.
8. Clinic and treatment of the pterygoid scapula.
9. Clinic and treatment of Madelung's disease.
10. Classification of scoliosis.
11. Treatment of scoliosis.
12. Principles, diagnosis and treatment of posture disorders.

Control form: questions, test control, situational tasks.

Topic 7. Osteochondropathy. Systemic diseases and skeletal deformities. Deforming osteoarthritis. Osteocondritis of the spine.

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Etiology and pathogenesis of osteochondropathy.
2. The course and their clinical manifestation of osteochondropathy.
3. Osteochondropathy of the femoral head (Perthes disease), diagnosis and treatment methods.
4. Osteochondropathy of the tibial tuberosity (Osgood-Schlater disease), diagnosis and treatment

methods.
5. Osteochondropathy of the scaphoid bone of the foot and the heads of the II - III metatarsal bones of the foot (Keller I and Keller II disease), diagnosis and treatment methods.
6. Osteochondropathy of the vertebral bodies apophyses (Scheuermann-Mau disease), diagnostics and methods of treatment.
7. Osteochondropathy of the vertebral bodies (Calvet disease), diagnosis and treatment methods.
8. Rheumatoid arthritis. Pathogenesis, clinical picture, diagnosis and treatment.
9. Deforming arthrosis, etiopathogenesis, clinical picture, diagnosis and treatment depending on the stages of the process and the nature of the changes.
10. Indications and contraindications for surgical treatment.
11. Endoprosthetics of joints in arthrosis.
12. Etiopathogenesis of spinal osteochondrosis.
13. Stages of osteochondrosis, clinical picture and diagnosis of the process of various localization.
14. Indications for conservative and surgical methods of treating osteochondrosis.
15. Etiopathogenesis of arthrogrippus and bone formation imperfecta, clinical picture, diagnosis and treatment methods.
16. Modern apparatus methods of rehabilitation for systemic diseases of the skeleton.
17. Orthopedic products used in the rehabilitation process.
18. Methods of physiotherapy, massage, exercise therapy.

Questions on the topic of the lesson for independent work:

1. Diagnostics and principles of treatment of osteochondropathy of the bones of the feet.
2. Congenital fragility of bones, clinical picture, diagnosis.
3. Modern classification of osteoarthritis.
4. Principles of treatment of osteoarthritis of typical localization.
5. Types of surgical interventions for deforming arthrosis.
6. Principles of outpatient treatment of arthrosis.
7. Classification of degenerative diseases of the spine.
8. Typical clinical manifestations of spinal osteochondrosis.
9. Principles of orthopedic treatment of spinal osteochondrosis.
10. Indications for surgical and conservative methods of treating osteochondrosis.
11. The main methods of surgical treatment of osteochondrosis.

Control form: questions, test control, situational tasks.

Topic 8. Bone tumors. Diseases and deformities of the feet. Spasmodic and flaccid paralysis.

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Classification of tumors.
2. Primary benign tumors of cartilaginous and bone origin.
3. Clinical and radiological features of tumors.
4. Methods for the treatment of benign tumors.
5. Primary malignant tumors of cartilaginous and bone origin.
6. Clinical and radiological methods for the diagnosis of malignant tumors.
7. Methods for the treatment of malignant tumors.

8. Secondary malignant tumors.
9. Blade and treatment of secondary tumors.
10. Etiology, pathogenesis of static foot deformities.
11. Classification of foot deformities.
12. Etiology and pathogenesis of the development of longitudinal and transverse flat feet and planovalgus foot.
13. Clinic and methods for detecting foot deformities.
14. Methods for the treatment of flattening of the arches of the feet.
15. Deviation of the big toe outward, etiology and pathogenesis.
16. Methods of treatment of deviation of the thumb outward.
17. Hammer fingers. The reasons for the development.
18. Clinical symptoms of hammer toes. Treatment principles.
19. Classification of cerebral palsy.
20. Clinical forms of the disease.
21. Etiology and pathogenesis of cerebral palsy.
22. Orthopedic methods of treatment of cerebral palsy.
23. Clinical characteristics of flaccid paralysis (poliomyelitis).
24. Methods of conservative orthopedic treatment of flaccid paralysis.
25. Indications, principles of surgical treatment of flaccid paralysis.
26. The main types of operations for flaccid paralysis.
27. Rehabilitation measures for flaccid paralysis.

Questions on the topic of the lesson for independent work:

1. Clinical and radiological features of tumors.
2. Methods for the treatment of benign tumors.
3. Methods for the treatment of malignant tumors.
4. Etiology and pathogenesis of static foot deformities.
5. Methods for diagnosing moan deformities.
6. Principles of conservative and surgical treatment of foot deformities.
7. Issues of prevention of acquired foot deformities.
8. Etiology and pathogenesis of cerebral palsy.
9. Orthopedic methods of treatment of infantile cerebral palsy.
10. Clinical characteristics of poliomyelitis.
11. The main types of operations for flaccid paralysis.

Control form: questions, test control, situational tasks.

Section 4. Questions of rehabilitation and medical examination

Topic 9. Rehabilitation of patients with injuries and diseases of ODA

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Questions of organization of outpatient care for patients with injuries and orthopedic diseases
2. Organization of the work of the trauma center.
3. Structural and functional subdivisions of the trauma center, consultative and diagnostic center.
4. Peculiarities of treatment of injuries of the musculoskeletal system on an outpatient basis.

5. Options for therapeutic immobilization of the limbs and spine in outpatient treatment.
6. Possible terms of outpatient treatment of patients with injuries of the musculoskeletal system.
7. Indications for changing the plaster cast.
8. Differential diagnosis of typical orthopedic diseases on an outpatient basis.
9. Indications for outpatient and inpatient treatment of patients with orthopedic diseases.
10. Principles of outpatient treatment of typical orthopedic diseases.
11. Modern apparatus methods of rehabilitation.
12. Orthopedic products used in the rehabilitation process.
13. Corset therapy.
14. Methods of physiotherapy, massage, exercise therapy.
15. Mechanotherapy.

Questions on the topic of the lesson for independent work:

1. Principles of organization of outpatient care for traumatological and orthopedic patients.
2. The structure, functional subdivisions of the trauma center, consultative and diagnostic center.
3. Principles of differential diagnosis of orthopedic diseases and the consequences of trauma.
4. Possible terms of outpatient treatment of patients with orthopedic diseases and the consequences of trauma.
5. Indications for inpatient treatment of patients.

Control form: questions, test control, situational tasks.

Topic 10. Questions of medical examination

Form of conducting - practical lesson

Questions on the topic of the lesson:

1. Criteria for determining the ability to work with typical orthopedic diseases and the consequences of trauma.
2. The procedure for referral to VTEK.
3. Spa treatment of patients with orthopedic diseases and the consequences of trauma.
4. Principles of professional, social and medical rehabilitation of patients.

Questions on the topic of the lesson for independent work:

1. Criteria for work ability, the procedure for referring patients to VTEK.
2. Features of medical and labor expertise for injuries and diseases of the musculoskeletal system.
3. Principles of spa treatment and optimal options for its use in orthopedic and traumatological patients.

Control form: questions, test control, situational tasks.

7. LABORATORY WORKS, PRACTICES

This type of work is not provided for by the UP.

8. TOPICS OF COURSE, CONTROL WORKS, ABSTRACTS

1. Modern research methods in traumatology and orthopedics.
2. Traumatic shock. Etiology. Pathogenesis. Treatment.
3. Hip dislocations: classification, clinical picture, diagnosis, treatment.
4. Dislocations of the shoulder: classification, clinical presentation, diagnosis and treatment.
5. Dislocations of the forearm: classification, clinical picture, diagnosis and treatment.
6. Fractures of the clavicle. Clinic, diagnosis and treatment.
7. Fractures of the humerus. Clinic, diagnosis and treatment.
8. Fractures of the bones of the forearm. Clinic, diagnosis and treatment.
9. Fractures of the femoral neck. Clinic, diagnosis and treatment.
10. Modern methods of treatment of elderly and senile people.
11. Trochanteric fractures of the femur. Clinic, diagnosis and treatment.
12. Fractures of the femoral shaft. Clinic, diagnosis and treatment.
13. Fractures of the distal femur. Clinic, diagnosis and treatment.
14. Fractures of the proximal tibia. Clinic, diagnosis and treatment.
15. Diaphyseal fractures of the leg bones. Clinic, diagnostics, treatment
16. Fractures of the distal leg bones. Clinic, diagnostics, treatment.
17. Fractures of the talus. Clinic, diagnosis and treatment.
18. Fractures of the calcaneus. Clinic, diagnosis and treatment.
19. Modern classification of spinal injuries.
20. Conservative and surgical methods of treating spinal fractures.
21. Fractures of the pelvic bones. Classification, clinic, diagnostic methods.
22. Fractures of the pelvic bones. Modern methods of surgical treatment.
23. Concurrent injury. Classification. Principles of the prehospital stage of medical care.
24. Concurrent injury. The principles of the hospital stage of medical care.
25. Syndrome of prolonged compression. Etiology. Clinic. Principles of medical care.
26. Thermal burns. Modern methods of treatment.
27. Modern methods of surgical treatment of patients with fractures of the bones of the extremities.
28. Blocked intramedullary osteosynthesis.
29. Open fractures of the bones of the extremities. Classification. Basic principles of treatment.
30. Gabriel Abramovich Ilizarov. The place of transosseous compression-distraction osteosynthesis in modern traumatology and orthopedics
31. Rheumatoid arthritis. Clinic, diagnosis and treatment.
32. Posture disorders. Classification. The clinical picture. Diagnostics, treatment.
33. Scoliotic disease. Classification. Clinic, diagnostics. Treatment.
34. Spondylolisthesis. Clinic. Diagnostics. Treatment.
35. Deformations of the skeleton with rickets. Clinic, diagnosis and treatment.
36. Ankylosing spondylitis. Clinic, diagnosis and treatment.
37. Benign bone tumors. Organ-preserving treatment methods.
38. Congenital torticollis. Clinic, diagnosis and treatment.
39. Congenital dislocation of the hip. Clinic, diagnosis and treatment.
40. Congenital clubfoot. Classification, clinic, diagnosis and treatment.
41. Madelung's disease. Etiology, clinic, diagnosis and treatment.
42. Radiation clubhand. Etiology, clinic, diagnosis and treatment.
43. Syndactyly. Classification. Surgical treatment methods.

44. Osteochondropathy. Etiology, classification, diagnosis, treatment principles.
45. Osteochondropathy of the femoral head. Etiology. Stages. Treatment.
46. Osteochondropathy of the bones of the foot. Classification. Clinic. Treatment.
47. Deforming gonarthrosis. Clinic, diagnosis and treatment.
48. Deforming coxarthrosis. Clinic, diagnosis and treatment.
49. Deforming crusarthrosis. Clinic, diagnosis and treatment.
50. Deforming arthrosis of the shoulder joint. Clinic, diagnostics, treatment.
51. Cerebral palsy. Orthopedic aspects of diagnosis and treatment.
52. Flat feet. The clinical picture. Diagnostics and treatment.
53. Endoprosthetics of large joints. Indications. Possible complications.
54. Infections of the surgical site. Clinic, diagnostics, treatment.
55. Chronic osteomyelitis. Clinic, diagnosis and treatment.

The text of the abstract should be typed with 1.5 spacing, 14 point size, Times New Roman font, on one side of standard A4 sheets of white paper, all margins - 2.5 cm, paragraph indentation (red line) - 1.27. The volume of the abstract, taking into account tables, illustrations, bibliography, 20 - 25 pages. Russian language.

9. LIST OF QUESTIONS FOR THE EXAM

1. Transport immobilization for fractures of the humerus using standard and improvised splints
2. Transport immobilization for fractures of the femur with standard and improvised splints
3. Immobilization of the cervical spine in case of injuries and diseases
4. Corset therapy for injuries and diseases of the thoracolumbar spine
5. Chenot-type corset in the treatment of scoliotic disease in childhood and adolescence
6. Principles of prescribing devices to facilitate walking in case of injuries and diseases of the musculoskeletal system
7. Principles of prescribing anti-decubitus systems to patients with forced prolonged bed rest
8. Orthoses for injuries and diseases of the hip joint in adults
9. Orthoses for injuries and diseases of the knee joint in adults
10. Orthoses for injuries and diseases of the ankle joint in adults
11. Methods of examination of traumatological and orthopedic patients.
12. Instrumental diagnostic methods in traumatology and orthopedics of the adult population
13. Instrumental diagnostic methods in traumatology and orthopedics of children and adolescents
14. Clinical, laboratory and instrumental diagnostics for injuries of the upper limb
15. Clinical, laboratory and instrumental diagnostics for injuries of the lower limb
16. Clinical, laboratory and instrumental diagnostics for fractures of the pelvic bones and injuries of the pelvic organs
17. Clinical and instrumental diagnostics for diseases and injuries of the spine
18. Principles of diagnosis in congenital pathology of the musculoskeletal system
19. General issues of diagnostics for tumors and tumor-like formations of the musculoskeletal system
20. Clinical, laboratory and instrumental diagnostics for acquired pathology of the musculoskeletal system
21. Fixation method of treatment. Indications, types of plaster casts.
22. Extension method of treatment. Types of indications. Spoke locations. Possible complications.
23. Intramedullary osteosynthesis. Indications and tools for its execution.
24. Extra bone osteosynthesis. Indications and tools for its execution.
25. Devices for external fixation. Types and their place in the treatment of injuries and diseases of

the musculoskeletal system
26. Intramedullary osteosynthesis in the treatment of diaphyseal fractures of the long bones of the lower extremities
27. Endoprosthetics of large joints. Indications, contraindications. Early and late complications.
28. Pre-hospital stage of medical care for fractures of the pelvic bones
29. Tactics for fractures of the proximal humerus in adults.
30. Tactics for fractures of the proximal femur in old and senile age
31. Tactics at the prehospital stage of medical care for concomitant trauma
32. Congenital dislocation of the hip. Methods of conservative and surgical treatment
33. Congenital clubfoot. Methods of conservative and surgical treatment
34. Congenital torticollis. Methods of conservative and surgical treatment
35. Syndactyly and polydactyly. Clinic, diagnostics and surgical treatment.
36. Scoliotic disease. Etiopathogenesis. Methods of conservative and surgical treatment
37. Spastic paralysis. Etiopathogenesis. Orthopedic component of treatment.
38. Flaccid paralysis. Etiopathogenesis. Orthopedic treatment methods.
39. Diseases and deformities of the feet. Methods of conservative and surgical treatment
40. Degenerative-dystrophic diseases of the musculoskeletal system. Methods of conservative and surgical treatment
41. Acquired deformities of the musculoskeletal system. Methods of conservative and surgical treatment
42. Arthrosis. Etiopathogenesis. Methods of conservative and surgical treatment
43. Bone tumors. Methods of conservative and surgical treatment
44. Tumors of cartilage tissue. Methods of conservative and surgical treatment
45. Fibrous osteodysplasia. Methods of conservative and surgical treatment
46. Arthrogrippus. Etiopathogenesis. Methods of conservative and surgical treatment
47. Osteochondrosis of the spine. Etiopathogenesis. Methods of conservative and surgical treatment
48. Static deformations of the skeleton, their characteristics Clinic, diagnostics and methods of treatment.
49. Madelung's disease. Etiopathogenesis. Methods of conservative and surgical treatment
50. Rheumatoid arthritis. Etiopathogenesis. Methods of conservative and surgical treatment
51. Osteochondropathy. Etiopathogenesis. Clinic, diagnosis and treatment.
52. Osteochondropathy of the femoral head. Clinic, diagnostics and treatment methods.
53. Koenig's disease. Clinic. Methods of conservative and surgical treatment
54. Osteochondropathy of the bones of the foot. Clinic, diagnostics. Methods of conservative and surgical treatment.
55. Fractures of the femoral shaft. Transport immobilization. Conservative and surgical treatment.
56. Fractures of the femoral neck. Clinic. Methods of conservative and surgical treatment
57. Damage to the knee joint. Clinic, diagnostics. Methods of conservative and surgical treatment.
58. Diaphyseal fractures of the leg bones. Methods of conservative and surgical treatment
59. Injury to the ankles. Dislocation fractures of the ankle. Methods of conservative and surgical treatment.
60. Damage to the bones of the foot Clinic, diagnostics. Methods of conservative and surgical treatment
61. Fractures of the clavicle, scapula. Clinic, diagnostics. Methods of conservative and surgical treatment
62. Fractures of the humerus. Clinic, diagnostics Methods of conservative and surgical treatment
63. Fractures of the bones of the elbow joint Clinical picture, diagnosis. Methods of conservative and surgical treatment
64. Fractures of the bones of the forearm. Clinic, diagnostics. Methods of conservative and surgical

treatment.
65. Damage to the hand. Clinic, diagnostics. Methods of conservative and surgical treatment.
66. Fractures of the pelvic bones. Clinic, diagnostics. Methods of conservative and surgical treatment.
67. Injury of the spine Clinic, diagnostics. Methods of conservative and surgical treatment
68. Traumatic dislocations. Symptoms, diagnostics. Methods of conservative and surgical treatment.
69. Dislocation of the shoulder. Classification. Clinic, diagnostics. Methods of conservative and surgical treatment
70. Traumatic illness. Periods. Tactics of conservative and surgical treatment
71. Trauma to the chest. Hemo- and pneumothorax. Clinic, diagnostics Methods of conservative and surgical treatment.
72. Bleeding. Classification, diagnostics. Ways to temporarily stop bleeding
73. Wound infection. Types of wound infection, its prevention at the stages of medical evacuation.
74. Anaerobic infection. Clinic, diagnostics and treatment at the stages of medical evacuation.
75. Tetanus. Etiopathogenesis. Clinic, diagnostics and treatment at the stages of medical evacuation.

10. INDEPENDENT WORK OF STUDENTS

The content, requirements, conditions and procedure for organizing independent work of students, taking into account the form of training, are determined in accordance with the "Regulations on the organization of independent work of students", approved by the Academic Council of UlSU (protocol No. 8/268 of 03/26/2019).
Full-time form of education

Title of sections and topics	Type of independent work (study of educational material, problem solving, essay, report, control work, preparation for passing the test, exam, etc.)	Volume in hours	Control form (checking the solution of problems, abstract, etc.)
Section 1. General issues of traumatology, orthopedics			
Topic 1. Introduction to traumatology, orthopedics. Research methods	study of educational material, problem solving, essay	1	checking problem solutions, essays, tests, interview
Topic 2. Methods of treatment in traumatology, orthopedics	study of educational material, problem solving, essay	1	checking problem solutions, essays, tests, interview
Section 2. Traumatology			
Topic 3. Injuries of the upper and lower limbs	study of educational material, problem solving, essay	2	checking problem

			solutions, essays, tests, interview
Topic 4. Injuries to the chest, pelvis and spine	study of educational material, problem solving, essay	2	checking problem solutions, essays, tests, interview
Topic 5. Multiple and combined injuries. Traumatic illness	study of educational material, problem solving, essay	2	checking problem solutions, essays, tests, interview
Topic 6. Congenital deformities of the osteoarticular apparatus. Spine deformities	study of educational material, problem solving, essay	2	checking problem solutions, essays, tests, interview
Topic 7. Osteochondropathy. Systemic diseases and skeletal deformities. Deforming osteoarthritis. Osteocondritis of the spine	study of educational material, problem solving, essay	2	checking problem solutions, essays, tests, interview
Topic 8. Bone tumors. Diseases and deformities of the feet. Spastic and flaccid paralysis	study of educational material, problem solving, essay	2	checking problem solutions, essays, tests, interview

11. EDUCATIONAL-METHODICAL SUPPORT OF THE DISCIPLINE

Травматология, ортопедия

a) List of recommended literature

Main literature:

1.Гостищев, В. К. General surgery / The manual. - М. : GEOTAR-Media, 2020. - 220 p. - 220 с. - ISBN 978-5-9704-5439-8. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970454398.html

2. Traumatology and Orthopedics : textbook / A. V. Garkavi, A. V. Lychagin, G. M. Kavalerskiy [et al.]. - Москва : ГЭОТАР-Медиа, 2023. - 784 с. - ISBN 978-5-9704-7465-5, DOI: 10.33029/9704-7465-5-TOG-2023-1-784. - Электронная версия доступна на сайте ЭБС "Консультант студента" : [сайт]. URL: https://www.studentlibrary.ru/book/ISBN9785970474655.html

Additional literature:

1. Лашковский В. В. Traumatology and orthopedics = Травматология и ортопедия : сборник тестов для студентов факультета иностранных учащихся с английским языком обучения (специальность 1-79 01 01 «Лечебное дело») : Tests for students of faculty for international students with English language of study (speciality 1-79 01 01 «General Medicine») / В. В. Лашковский, А. Г. Мармыш, Г. А. Кошман. - Гродно : ГрГМУ, 2019. - 61 с. - ISBN 9789855950852. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : https://www.books-up.ru/ru/book/traumatology-and-orthopedics-12069221/
2. Kruchkova, A. V. Care for Surgical Patients / A. V. Kruchkova, Yu. V. Kondusova, I. A. Poletayeva and others; edited by A. V. Kruchkova. - Москва : ГЭОТАР-Медиа, 2020. - 144 с. - ISBN 978-5-9704-5664-4. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970456644.html

Educational and methodical

1. **Shevalaev G. A.**
Methodological guidelines for the organization of independent work of residents on the discipline "Traumatology, orthopedics" specialty «31.05.01 General medicine» / G. A. Shevalaev; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 16 p. - Неопубликованный ресурс; На англ. яз. - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/12813 . - Режим доступа: ЭБС УлГУ. - Текст : электронный.

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The position of the worker scientific library Full name signature date

b) Software:

SPS Consultant Plus
NEB RF
IPRBooks
AIBS "MegaPro"
OC Microsoft Windows

с) профессиональные базы данных, информационно-справочные системы

1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2024]. – URL: http://www.iprbookshop.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2024]. - URL: https://urait.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2024]. – URL: https://www.studentlibrary.ru/cgi-bin/mb4x. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2024]. – URL: https://www.rosmedlib.ru. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2024]. – URL: https://www.books-up.ru/ru/library/ . – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2024]. – URL: https://e.lanbook.com. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2024]. - URL: http://znanium.com . – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

2. КонсультантПлюс [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2024].

3. eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2024]. – URL: http://elibrary.ru. – Режим доступа : для авториз. пользователей. – Текст : электронный

4. Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2024]. – URL: https://нэб.рф. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

5. Российское образование : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: http://www.edu.ru. – Текст : электронный.

6. Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: http://lib.ulsu.ru/MegaPro/Web. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Согласовано:

Инженер ведущий / Щуренко Ю.В. / _____ / 16.04.2024 г.

Должность сотрудника УИТиТ ФИО подпись дата

12. MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE:

1. The list of premises required for classroom training in the discipline.
2. Auditoriums with tables, chairs, couch - 2.
3. An auditorium equipped with simulation equipment - a simulation center.
4. Human skeleton - 1.
5. The list of equipment required for classroom training in the discipline.
6. Multimedia complex - 1.
7. Personal computer - 2.
8. 3 Tables for various sections of the discipline.
9. Videos - 8.
10. Clinical bases

№ п/п	The name of the discipline section	Logistics of the discipline
1.	Traumatology, orthopedics of the adult population	The clinical base (GUZ "Ulyanovsk Regional Clinical Center for Specialized Types of Medical Aid") is equipped with the necessary tools and equipment for the implementation of outpatient, qualified and specialized traumatological and orthopedic care. The clinical base (GUZ "Ulyanovsk Central City Clinical Hospital") is equipped with the necessary tools and equipment for the implementation of outpatient, qualified and specialized traumatological and orthopedic care.
2.	Pediatric Traumatology and Orthopedics	The clinical base (GUZ "Children's Regional Clinical Hospital named after Yu.F. Goryachev") is equipped with the necessary tools and equipment for the implementation of outpatient, qualified and specialized traumatological and orthopedic care.

13. SPECIAL CONDITIONS FOR STUDENTS WITH LIMITED HEALTH CAPACITIES

If it is necessary, students with limited health capacities (according to the student) may be offered one of the following options for perceiving information, taking into account their individual psychophysical features:

- for persons with visual impairment: in printed form in large print; computer-based document; an audio file form (reformat training materials into audio); in Braille printed form; individual class with **a** tactile interpreter; individual tasks and classes;

- for persons with hearing impairment: in printed form; computer-based document; video materials with subtitles; individual classes involving sign language interpreter; individual tasks and classes;

- for persons with disorders of the musculoskeletal system: in printed form; computer-based document; in the form of an audio file; individual tasks and classes.

If it is necessary to use partially / exclusively distance learning technologies in the educational process, the organization of the work of teaching staff with students with disabilities and the disabled is provided in the electronic information and educational environment, taking into account their individual psychophysical characteristics

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