LVIV NATIONAL MEDICAL UNIVERSITY

NAMES DANULO GALITSKY

<< APPROVED >>

First vice-rector

From the educational and pedagogical work

_____ prof. Gzhegotsky M.R.

<< 17 >> 09 2021

WORKING EDUCATIONAL PROGRAM FROM DISCIPLINE

<< Traumatology and Orthopedics >>

Specialties: 222 << Medical business >>

Approved by the scientist
at the methodical meeting of the
department of medical faculties
September 30, 2021
Protocol No. 30
From. 03.09.21
Head of Department prof. Trutyak I.R.

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Approved by the profile
methodical commission on
surgical disciplines.
Chairman of the profile
methodical commission
Protocol # 12
From: 10. 09. 2021р
Prof. Andryshchenko V.P

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Робоча навчальна програма з дисципліни Травматологія і ортопедія для чужоземних студентів 5 курсу медичного факультету, які навчаються за спеціальністю 222 ´ медицина[a]

Складена:

Трутяк І.Р. професор завідувач кафедри травматології і ортопедії Львівського Національного Медичного Університету імені Данила Галицького.

Гнатейко Н.О. доцент кафедри Львівського Національного Медичного Університету імені Данила Галицького.

На підставі примірної програми, затвердженої профільною медичною комісією

(протокол № 30 від 30.серпня 2021р.)

Зміни та доповнення до програми навчальної дисципліни на 2021 ñ 2022 н.р.

№ З/П	Зміни внесених змін	Дата і номер протоколу засідання кафедри	Примітки
1.	Зміни не було внесено	30.08.2021	

Завідувач кафедри

Травматології і ортопедії,

Д.мед.наук, професор Трутяк І.Р

DEVELOPED AND INSERTED:

Lviv National Medical University named after Danylo Halytsky

Department of Traumatology and Orthopedics

DEVELOPERS OF THE PROGRAM:

Employees of the Department of Traumatology and Orthopedics. D.M.N. Professor Trutyak I.R., Ph.D., Associate Professor, Gnateyko N.O.

EXPLANATORY NOTE

The program on traumatology and orthopedics for the higher medical educational institutions of Ukraine of III - IV levels of accreditation is compiled for the specialties: according to the Standard of higher education of the second (master's) level

field of knowledge 22 "Health"

specialty 222 "Medicine"

educational program of master of medicine

The study of traumatology and orthopedics is carried out during one semester of the 5th year of study.

Traumatology and orthopedics as an educational discipline

a) It is based on students' study of medical and biological physics, biology and bioorganic chemistry, human anatomy, physiology, radiology, general surgery (with operative surgery and topographic anatomy) and integrates with surgery, pediatric surgery, oncology, neurosurgery, anesthesiology and intensive care;

b) Establishes the basics of studying family medicine and emergency medicine for students, which involves the integration of teaching with these disciplines and the formation of skills to apply knowledge of traumatology and orthopedics in the process of further training in professional activities.

The discipline is structured into 3 divisions:

Subsection 1. General issues of traumatology.

1. Introduction to specialty. Features of examination of traumatologic and orthopedic patients. Damage to the muscles, tendons and ligaments. Traumatic dislocations.

2. Traumatic illness. Polytrauma Traumatic shock. Crash syndrome Damage to soft tissues.

3. Amputation of the limbs. Rehabilitation and prosthetics of patients with limb defects. Treatment of traumatologic and orthopedic patients in ambulatory conditions.

Section 2. Damage to bones and joints.

4. Damage to the bones and joints of the upper limb.

5. Damage to the spine and pelvis.

6. Damage to the bones and joints of the lower extremity.

Subsection 3. Degenerative - dystrophic, inflammatory and tumor diseases of bones and joints.

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7. Degenerative - dystrophic diseases of the joints and spine.

8. Congenital deformities of the spine, bones and joints. Scoliosis

9. Inflammatory, tumorous, and tumor-like diseases of the system of support and movement.

10. Basic principles of osteosynthesis.

The system of organization of the educational process encourages students to study systematically during the school year.

Types of educational activity of students according to the curriculum are:

a) Lectures

b) Practical classes

c) Independent work of students

The topics of the lecture course reveal the problematic issues of the relevant sections of traumatology and orthopedics.

Features of the organization of practical classes in clinical disciplines is the compilation of a thematic plan, taking into account the teaching of the material on adjacent chairs of surgical profile. Integrated study of several clinical disciplines will facilitate their in-depth learning.

The main purpose of practical classes should be the formation of practical skills for diagnosis and treatment of patients with damage and diseases of the musculoskeletal system. In order to maximally approximate the study to work in real conditions, practical classes should be conducted in the medical departments of the in-patient department, in the reception departments, in the gypsum cabinet, dressing, operating, consulting and diagnostic units and traumatological points.

In preparing for a practical lesson, students should refer to the material of lectures, study the main issues of the topic by methodological guidance for practical classes

and questions that they were formulated by the teacher on the eve of the day. The practical training should be financially secured:

1. Multimedia information

2. Thematic tables

3. Roentgenograms

4. Mules

5. Slide

6. Traumatology toolkit

7. Metalwork and tools for metal osteosynthesis

The practical lesson begins with verifying the initial level of students' knowledge of a given topic with the help of tests of the first level of complexity. Various means can be used for this purpose:

1. Oral questioning

2. Written task

3. Computer control

4. And other ..

Most of the practical lessons are used by students for the supervision of patients, the development of practical skills, the study of X-rays and histories of the diseases of thematic patients. Practical skills should be worked out in two stages. On the first - on phantoms and volunteers. In the second stage after acquiring a sufficient level, practical skills are practiced by students in the treatment of patients under the control of a teacher.

It is expedient to finish the classroom by controlling the degree of material absorption using tests in accordance with educational objectives.

While undergoing practical classes, the student supervises one patient, writes and gives the teacher a learning history of the illness with its subsequent protection.

The departments of traumatology and orthopedics have the right to make changes to the curriculum, depending on the organizational and technical capabilities of the areas of scientific research, geographic, economic and ecological characteristics of the region, but generally have to meet the requirements of discipline in accordance with the final objectives of the OCP and OPE on the specialty of training and education the plan.

The current educational activity of students is controlled by practical classes in accordance with the specific goals and during the individual work of the teacher with the students.

It is recommended to use the following means of controlling the level of students' training:

1. Computer tests

2. Solving situational problems

3. Conducting clinical examinations, interpreting and evaluating their results

4. Analysis and evaluation of instrumental research

5. Control of practical skills

6. Others

The final control over the mastering of topics is carried out upon completion.

Assessment of the student's progress in the discipline is rated and displayed on a multi-scale scale as an arithmetic mean of the assessment of the relevant subjects and has a definition based on the ECTS system and the traditional scale adopted in Ukraine.

For those students who want to improve their academic performance on the ECTS scale, the final control over the subject acquisition is carried out on an additional schedule approved at the educational institution: during the winter holidays or during the last 2 weeks of the school year.

1. DESCRIPTION OF TRAINING PLAN FOR DISCIPLINES TRAVMATOLOGY AND ORTHOPEDICS FOR STUDENTS OF MEDICAL FACULTIES

Structure of academic discipline	Number of hours				Year of study	Type of control
	Total	Audience		CPC		
		Lectures	practical classes			
	90	10	40	40	5	confirm
ECTS credits	3,0					
Including the final	8 hours. / 0.13 credits		4	4		confirm
Control	ECTS					confirm
Weekly load	2.1 hours / 0.07 credits					

	ECTS					

NOTE: 1 credit ECTS 30 h.

Audit load - 66.7%, CPC - 33.3%

2. THE PURPOSE OF STUDY OF EDUCATIONAL DISCIPLINE

The purpose of the study of traumatology and orthopedics - the ultimate goals are established on the basis of OPP preparation of a doctor in the specialty according to the block of its content module and is the basis for constructing the content of the discipline. The description of the goals is formulated through skills in the form of target tasks. On the basis of the ultimate goals, each module or content module formulated specific goals in the form of certain skills and objectives, which ensure the achievement of the ultimate goal of studying the discipline. The ultimate goals are at the beginning of the program and precede the contents of the content module.

The ultimate goal of the discipline

ï PP 128 - to determine the tactics of the management of patients with injuries and with the most common orthopedic diseases of the musculoskeletal system

ï PP 167 - demonstrate possession of the method of prevention of injuries and orthopedic diseases

ï PP 187 - to diagnose urgent conditions with injuries of the locomotor system and to provide emergency medical care

ï PP 227 - explain the principles of restorative treatment and rehabilitation of patients with ORA lesions

ï PP 235 - to conduct differential diagnostics of traumatic OPA injuries, to establish a preliminary diagnosis of trauma and the most common orthopedic diseases.

3. CONTENT OF THE PROGRAM

Subsection 1. General issues of traumatology and orthopedics

Specific goals:

1. To interpret the concept of traumatology orthopedics, and to know the features of the diagnostics of damage to the ORA system

2. To assimilate the principles of classification of typical injuries and orthopedic diseases

3. To be able to provide urgent medical care to victims of fractures to the hospital stage

4. To explain pathogenetic features of traumatic illness during field injuries.

5. To draw up the schemes of treatment and rehabilitation of victims with fractures and their complications.

6. To master the principles of prevention of injuries and orthopedic diseases.

7. To assimilate pathogenesis and classification of traumatic shock.

8. To be able to diagnose traumatic shock and to provide medical care at prehospital and hospital stages.

Topic 1. Introduction to the specialty. Features of examination of traumatologic and orthopedic patients. Damage to the muscles, tendons and ligaments. Traumatic dislocations.

Definition of traumatology and orthopedics as a discipline. History of development and modern achievements of domestic traumatology and orthopedics.

Features of collecting anamnesis in patients with pathology ORA. Methods of determining the method of determining the axis of the extremities and the spine. The main types of deformations of the extremities and the spine. Measurement of length and volume of limbs. Types of limb contractions and methods for their determination. Methods of determining the volume of motion in the joints. Types of contractures.

Absolute and relative clinical signs of fractures, dislocations. Probability and relative signs of diseases of the joints and the spine. X-ray signs of fractures, dislocation and orthopedic diseases. Use of NMR - tomography, DDD and densitometry in diagnostics of lesions of the support and movement system. Definition of concepts - dislocation, - subluxations. Pathomorphology of dislocation, general classification of dislocations. Mechanogenesis (shoulder, forearm, thigh) their classification and clinic. Provision of medical care to the hospital stage, treatment of dislocations in the languages of a specialized hospital. Complications of dislocations, their prevention and treatment.

Theme 2. Traumatic shock, long-term compression syndrome.

Definition of the concept of traumatic shock, the frequency and severity of shock in the war and in peacetime, modern ideas about etiology and pathogenesis, clinical manifestations of shock at different localizations of injuries. Comprehensive shock treatment, modern methods of correction of hemodynamic disorders, respiration, exchange and neuroendocrine disorders. Contents of anti-shock measures in conditions of hostilities and extreme situations. Early prevention of shock. Prolonged

compression syndrome, etiology, pathogenesis. Classification. Development phases. Clinic. Dependence of clinical manifestations on the mass of tissue damage, strength and duration of action on them by the factor of crushing. Modern methods of treatment in conditions of hostilities and natural disasters. Features of treatment of open and closed damages of soft tissues with fracture and without bone fracture.

Theme 3. Fire and closed damage to the limbs and joints.

Frequency and classification of gingival fractures of the limbs. Clinic and diagnostics. The volume of the first medical pre-medical (paramedic) first medical and qualified medical aid.

Closed and open firearms of bone fractures. Clinic and diagnostics of open and closed fractures. The volume of the first medical pre-medical (paramedic) first medical and qualified medical aid.

Gunshot wounds of joints and extremities, their classification. General and local clinical manifestations of joint damage. Complications with joint damage. The volume of the first medical pre-medical (paramedic) first medical and qualified medical aid.

Firearms wound the brush, feet and their treatment.

Wound and damage to blood vessels, their classification, clinical picture and diagnostics of gunshot wounds of large blood vessels.

Methods of temporary and final stop of a bleeding in field conditions and extreme situations.

Transport immobilization with damages of limbs. Symptoms and diagnosis of nerve damage. The volume of the first medical pre-medical (nursing) first medical and qualified surgical aid in case of nerve damage.

Unit 2. Damage of the spine, pelvis, bones and joints of the upper and lower extremities.

Specific goals:

1. To explain modern ideas about mechanisms of damage of the spine, bones and joints of the zones of the upper and lower extremities.

2. To assimilate the principles of classification of damages of the spine, bones and joints of the upper and lower extremities.

3. To learn the principles of diagnostics of damage to the spine, bones and joints of the upper and lower extremities.

4. To draw up the schemes of conservative and operative treatment of damage to the spine, bones and joints of the upper and lower extremities.

5. Plan for the prevention of complications of the spine, bones and joints of the upper and lower extremities.

6. Be able to diagnose long-term crushing syndrome. Know the etiology, pathogenesis and classification of gunshot wounds of the musculoskeletal system.

7. To be able to provide urgent medical assistance to victims of fire and injury of bones and joints.

Theme 4. Damage to the upper limbs of the bones and joints.

Damage to the blade. Classification, diagnosis and treatment. Dislocation and fractures of the collarbone. Diagnosis, conservative and operative treatment.

Mechanogenesis of fractures of the proximal humerus. Classification, diagnosis and treatment. Fractures of the diaphyseal humerus. Classification, diagnosis and treatment. Fractures of the distal end of the humerus, mechanogenesis of the injury. Classification, diagnosis and treatment.

Fractures of the elbow appendix. Mechanogenesis of trauma. Classification, diagnosis and treatment.

Fractures of the head of the radial bone. Mechanogenesis of trauma. Classification, diagnosis and treatment.

Fractures of diaphyseal bones of the forearm. Classification, mechanism of damage. Features of shifting chips. Clinic. Diagnosis.

Indications for conservative, operational methods of treatment.

Fractures of the distal end of the radius and their types. Mechanogenesis of damage. Clinic. Diagnosis and treatment.

Fractures of the bones of the brush. Fractures of the bones of the wrist and the kneecap of the brush. Typical injury mechanisms. Clinic. Diagnosis. Treatment.

Damage to the tendons of fingers. Diagnosis. Clinic. Treatment.

Topic 5. Damage to the spine and pelvis.

Classification of damage to the spine, their mathogenesis, pathomorphology. The concepts of "stable" and "unstable" damage to the spine. Clinical manifestations of complicated and uncomplicated injuries, depending on their localization. Provision of medical care to the hospital stage, with various damage to the spine. Treatment of spinal injuries at the hospital stage. Conservative and operative methods of treatment

of complicated and uncomplicated damages of the spine, their indications and techniques of execution. Social and professional rehabilitation of patients with damage to the spine.

Classification of pelvic lesions and mechanogenesis of various variants of their formation. Clinical picture with various damage to the pelvis. Clinical features of pelvic lesions. But their diagnosis. Principles of provision of medical care to the hospital stage by types of pelvic injuries. . Conservative and operative methods of treatment of patients with various types of pelvic injuries.

Theme 6. Damage to the bones and joints of the lower limb.

Classification of fractures of proximal metaepiphysis of the femur. Damage mechanism. Clinic, diagnostics. Provision of medical care to the hospital. Features of reparative regeneration of fractures of the proximal thigh. Methods of treatment, their indications and features, depending on the localization of fractures and their types.

Fractures of the diaphysis of the femur. Mechanism of injury, clinic, diagnostics. Features of the displacement of fragments depending on the localization of the fracture. Indications for conservative and surgical treatment.

Fractures of the femoral articulations. Classification, mechanism of injury. Clinic, diagnostics. The main principles of treatment. Indications for operative and conservative treatment methods.

Fractures overcorrel Clinic, diagnostics. Treatment methods depending on the type of fracture. Damage to the knee joint. Mechanism of injury, clinic, diagnostics. Methods of conservative and prompt treatment. Damage to meniscus. Mechanism of injury, clinic, diagnosis, treatment.

Damage to the soft tissues of the leg (muscles, hemic tendons, small tibia and tibia nerves, vessels). Clinics, diagnostics and their treatment.

Fractures of the bones of the shin. Classification. Mechanism of damage, clinic, diagnostics. Conservative and operative methods of treating fractures of the shin bones, indications for them.

Fractures of the tibia. Classification, mechanism of trauma, diagnostics. Conservative and prompt treatment. Closed reposition technique with typical bone fractures. Fractures of the paraplegic and heel bones.

The mechanism of their damage. Clinic, diagnostics, treatment.

Fractures of the pelvic bones and phalanges of the fingers. Clinic, diagnostics, treatment. Features of treatment for fractures of the bones of the foot.

Subsection 3. Degenerative -distrophic, inflammatory, tumorous and tumorous diseases of bones and joints.

Specific goals

1. To conduct an examination of orthopedic patients, to formulate preliminary and to conduct differential diagnosis with destructive-dystrophic, inflammatory and tumor lesions of the system of support and movement.

2. To explain modern imaginations of etiology and pathogenesis of osteochondrosis and osteoarthritis.

3. To draw up the schemes of diagnostics of treatment, prophylaxis and rehabilitation of patients with osteoarthritis and osteochondrosis.

4. To explain modern ideas about the etiology and pathogenesis of scoliosis, classification of scoliosis and clinics of various degrees of scoliosis, methods of conservative and operative treatment of scoliosis and indications for them.

5. To plan the schemes of clinical and laboratory diagnostics and treatment of inflammatory and tumor lesions of bones and joints.

6. To diagnose osteo-articular tuberculosis, to determine the phases of the disease, indications for conservative and surgical treatment.

7. To assimilate the classification of tumors of cartilage and bone origin, their clinical and radiological signs, methods of treatment.

Theme 7. Congenital deformities of the spine, bones and joints. Scoliosis

Pathogenesis of spinal osteochondrosis. Biomechanics and physiology between the vertebral segment. Stages of osteochondrosis. Clinic, diagnosis of osteochondrosis of the spine of different locations. Indications for conservative and operative methods of treatment.

Etiology pathogenesis of spondylosis and spondylarthrosis. Clinic, diagnostics. Principles of treatment for spondylosis and spondylarthrosis. Professional rehabilitation of patients with degenerative - dystrophic diseases of the spine.

Etiology and pathogenesis of deforming arthrosis. Classification and Clinic of Arthrosis. Diagnosis. Principles of treatment of deforming arthrosis depending on the stage of the disease. Indications for conservative and operative treatment of arthrosis of the hip, knee lower leg joints.

Theme 8. Degenerative - dystrophic, diseases of the spine and joints.

Congenital muscle cervix, Clippel's disease - Feil, Grisel's disease. Congenital high standing of the shoulder blade, wing-like shoulder blade. Etiology. Clinic. Principles of diagnosis and treatment.

Leaf-shaped and ring-shaped chest. Pathogenesis of scoliosis. Classification of scoliosis. Clinic of different grades of scoliosis. Basic principles of early recognition of scoliosis. Prevention, conservative and operative methods of treatment. Wade positions and their species. Etiology. Principles of treatment.

Congenital hip dislocation. Etiology, pathogenesis. Clinical - X-ray diagnostics of congenital hip dislocation up to 1 year. Prevention of congenital hip dislocation. Features of his treatment in different age groups.

Congenital clubfoot. Etiology, pathogenesis. Clinic, diagnostics. Methods of conservative and operative treatment, their testimony. Clinical and anatomical forms of syndactylia and polydactyly. Treatment.

Theme 9. Inflammatory, tumorous and tumorous diseases of the system of support and movement.

Rheumatoid arthritis Etiology, pathogenesis, clinic. Principles of complex treatment: medication, orthopedic. The choice of orthopedic methods depending on the stage of the disease. Syphilitic lesions of bones and joints. Classification: congenital and acquired (early, late) Clinical and radiological symptoms depending on its form. Treatment.

General issues of pathogenesis and clinics of bone and articular tuberculosis. Tuberculosis forms. Tuberculous spondylitis, phase of flow. Clinical - X-ray diagnostics. General principles of conservative treatment. Indications for surgical treatment and types of surgical interventions. Tuberculosis of the hip and knee joints. Phases of the course of the disease, clinical - radiologic symptomatology. Indications for conservative and surgical treatment.

Classification of tumors. Primary benign tumors of cartilage and bone origin: chondroma, osteoblastoclostoma, osteoma, osteoid osteoma. Clinical and X-ray signs of tumors. Methods of treatment.

Primary malignant tumors of cartilage and bone origin: chondrosarcoma, periosteal fibrosarcoma, osteogenic sarcoma, Ewing sarcoma. Clinical and X-ray methods of diagnosis of malignant tumors, their treatment. Secondary malignant tumors: metastatic and germinating into the bone from surrounding soft tissues (synovium) Clinic, treatment.

Tumor-like bone diseases: somatic bone marrow, aneurysmal bone marrow, osteoid osteoma. Clinical and radiological signs. Treatment.

Theme 10. Basic principles of osteosynthesis.

In our country, about 2 million adults and more than 300 thousand children are traumatized each year. Among the main causes of mortality and the structure of primary disability in Ukraine, the consequences of injuries steadfastly occupy the third place, second only to cardiovascular and oncological diseases. The annual economic costs of the state as a result of injuries amounted to over 5.2 billion UAH. The introduction of world standards, classifications and relevant diagnostic and surgical technologies, as well as the provision of highly specialized traumatological assistance, include the special training of orthopedic traumatologists and surgical nurses to perform osteosynthesis at the present level.

Up to 25% of damages to the musculoskeletal system are open fractures, which, in more than 64% of cases, are accompanied by complications that lead to limitation of the survivors' lives and disability. Up to 10% of all traumatic injuries of the backbone are spinal injuries, of which 8% are complicated by damage to the spinal cord.

Every year in Ukraine, more than 20 thousand victims of injuries become disabled, of which about 90% - persons of working age.

All of the above factors require improvements in the treatment of injured patients, including fractures. In this plan, one of the current trends in the world of traumatology and orthopedics is the development and widespread introduction of modern methods of osteosynthesis into the practice of the traumatologist-orthopedist, aimed at shortening the timing of fracture joints, staying in the hospital, ensuring the early function of the damaged limb, reducing the level of disability and rapid social adaptation the victim

Osteosynthesis (osteosynthesis) is a surgical combination of bone fragments in the right position for the purpose of stable fixation until complete consolidation (bone splice) and achievement of restoration of the integrity and function of the bone. Osteosynthesis is used in the treatment of fresh, non-enlarged, incorrectly grown fractures and false joints, bone joints after its osteotomy.

STRUCTURE OF DISCIPLINE

"TRAUMATOLOGY AND ORTHOPEDICS"

	Number of hours	

	lectures	Practical classes	CPC	
Subdivision 1. General issues of traumatology and orthopedics. Syndrome of prolonged crushing, etiology, pathogenesis. Gunshot wounds of joints and bones, their classification.				Summary on topics to choose from: 1. Open joints damage. 2. Complications of fractures and injuries of the joints. 3.The long-term compression syndrome. 4. Osteopenia and osteoporosis. 5. Inflammatory diseases of the bones and joints
1. Introduction to specialty. Features of examination of traumatologic and orthopedic patients. Damage to the ligaments, tendons and muscles. Traumatic dislocations.	1	4	2	
2. Traumatic illness. Traumatic shock. Polytrauma Modern principles of treatment of fractures.	1	4	3	
3. Amputation of limbs. Rehabilitation and prosthetics of patients with limb defects. Treatment of traumatologic and orthopedic patients in ambulatory conditions. Minnie Explosive Trauma.	-	4	3	
Section 2. Damage to the spine, pelvis, bones and joints of the upper and lower extremities.				
4. Damage to the bones and joints of the upper limb.	1	4	3	
5. Damage to the spine and pelvis.	2	4	2	
6. Damage to the bones and joints of the lower extremity.	1	4	3	
Subsection 3. Degenerative-degenerative, inflammatory and tumor diseases of the joints and the spine.				
7. Degenerative-dystrophic diseases of the spine and joints.	2	4	2	

8. Congenital deformities of the spine, bones and joints. Scoliosis	2	4	2	
9. Inflammatory, tumorous and tumorous diseases of the system of support and movement.	-	4	2	
10. Basic principles of osteosynthesis.		4	3	
Control			3	
Total hours	10	40	28	12

4. THEMATIC PLAN OF DISCIPLINE LECTURES

№	Topic	Number of hours
1	Traumatic illness. Politrauma Clinic, diagnosis, treatment. Pelvic damage. Clinic, diagnostics, treatment.	**2**
2	Introduction to Traumatology and Orthopedics. Regeneration of bone tissue. Closed and open fractures. Modern methods of treatment of fractures.	**2**
3	Damage to the spine. Clinic, diagnostics, treatment. Open fractures, features of treatment. Traumatic osteomyelitis.	**2**
4	Osteochondrosis of the spine. Clinic, diagnostics, treatment. Osteoarthritis Clinic, diagnostics, treatment. Rehabilitation in diseases and injuries of the musculoskeletal system	**2**
5	Inflammatory, tumorous and tumorous diseases of the support and movement system. Clinic, diagnostics, treatment. Scoliosis Deformation of neck, chest. Clinic, diagnostics, treatment.	**2**
	Total	**10**

5. THEMATIC PLAN OF PRACTICAL TRAINING FROM DISCIPLINE

№	Topic	Number of hours
Theme 1. General issues of traumatology		
1	Introduction to the specialty. Features of examination of traumatologic and orthopedic patients. Damage to the muscles, tendons and ligaments. Traumatic dislocations.	**4**
2	Traumatic shock, prolonged crushing syndrome.	**4**
3	Gunshot and closed damage to the limbs and joints.	**4**
Theme 2. Damage of the basin, spine, limbs and joints of the upper lumbar region to the lower extremities		
4	Damage of the bones and joints of the upper limb belts.	**4**
5	Damage to the spine and pelvis.	**4**
6	Damage to the bones and joints of the lower extremity.	**4**
Theme 3. Degenerative - dystrophic, inflammatory and tumor diseases of bones and joints		
7	Congenital deformities of the spine and joints.	**4**
8	Congenital deformities of the spine, bones and joints. Scoliosis	**4**
9	Inflammatory, tumorous and tumor-like diseases of the support and movement system.	**4**
10	Basic principles of osteosynthesis	**4**
Final check		**залік**
Total hours		**40**

6. STUDENTS OF THE SELF-EMPLOYED WORK OF STUDENTS (CVS) AND ITS CONTROLLING FROM THE DISCIPLINE

№	Type of work	Number of hours	Type of control
1	Preparation for practical classes - theoretical training and practical skills development	**20**	Current control on practical classes.
2	Individual CPC Preparing a lecture on one theme by		The current

	choice: 1. Open joint damage 2. Complications of fractures and joint injuries 3. The syndrome of prolonged compression 4. Osteopenia and osteoporosis	**2**	console on practical classes
3	Patients curation	4	
4	Preparation for the final grade test	4	confirm
Total		**30**	

FORMS OF CONTROL

TERMS

The general principles of the assessment of students of Danylo Halytsky Lviv National Medical University (hereinafter referred to as the University) are determined by the Regulation on the organization of the educational process at the Danylo Halytsky LNMU (approved by the Academic Council on February 18, 2015, Minutes No. 1-VR). This procedure establishes detailed rules and recommendations for evaluating the results of student learning activities, including credits, examinations, differentiated credits, certification of graduates and crediting. This procedure is obligatory when evaluating all academic disciplines at the University, provided by the relevant educational program and the curriculum for the preparation of applicants for the second (master's) higher education level for each specialty. The form of enrollment of the discipline must be in accordance with the requirements of the curriculum and take into account the specifics of the discipline, including the goals and results of the training.

The form of enrollment of the discipline, the criteria for evaluation, the method of verification of the effect and all the results of the student's educational activities should be reflected in the curriculum. Students are obliged to familiarize themselves with the curriculum program prior to its study. Scientific and pedagogical workers of the departments (teachers), who conduct training sessions on the subject discipline, are obliged:

1. To inform students on the first lesson on discipline about the rules of enrollment of the discipline, including - the amount of requirements, forms and criteria of evaluation;

2. To control all learning outcomes (knowledge, practical skills and / or social competences) identified by the curriculum;

3. To apply to all students the uniform principles, requirements and criteria of evaluation;

4. Each year, review the content of the curriculum, taking into account the adequacy of the specific principles of student evaluation, including the forms and methods for verifying the achievement of the expected learning effects and evaluation criteria.

The procedure and the assessment methodology have a significant effect on the final results, on the possibility of analysis and on the statistical validity of the estimates. Therefore, when evaluating the preference is given to standardized methods: testing, structured writing, structured according to the procedure for controlling practical skills in conditions that are close to real. The content evaluates the level of formation of abilities and skills, which are defined in the educational program of preparation of the master of the corresponding specialty and reflected in the curriculum.

The system for assessing the knowledge, skills and abilities of students acquired during the training includes the following components:

ï ongoing monitoring of student learning outcomes and evaluation of its results when studying compulsory and selective disciplines;

ï final control of the results of the student's educational activity and the evaluation of its results after studying compulsory and selective disciplines;

ï evaluation of the results of the industrial practice;

ï evaluation of the results of integrated practical-oriented graduation examinations;

ï evaluation of the master's degree (diploma) work;

ï Evaluation of the results of the licensed integrated examinations.

In the educational process of the University, the following assessment scales are used: the two-point (200-point) scale, the traditional national 4-point scale and the ECTS rating scale (ECTS). The results are converted from one scale to another according to the rules set forth in section 5 of this provision.

CURRENT CONTROL

RESULTS OF EDUCATIONAL ACTIVITIES OF STUDENTS

The current control of the results of students 'educational activities in compulsory and selective disciplines is carried out in order to test students' knowledge, skills and abilities during classroom (practical, laboratory, seminary) classes, as well as to check the results of performing independent work tasks. The task of the current control is to check the level of readiness of the student to perform specific work: mastering the relevant training material, acquiring knowledge and developing skills

in solving specific problems and situations, ability to independently process texts, publicly or in writing to justify your own point of view, ability to work in a team, the ability to be responsible for the advice given decisions and decisions taken, etc.

Current control is carried out on the basis of a comprehensive assessment of the student's activities and competences acquired by him (knowledge, skills, skills, etc.), which includes control of the input level of knowledge, the quality of practical work, the level of theoretical training and the results of the initial control of the level of knowledge. Forms of current control are determined by the department and displayed in the curriculum of the corresponding discipline.

Forms of assessment of the current educational activity at the department should be standardized and include the control of theoretical and practical training. The results of current control (current progress) are an indicator of the level of students' learning of the curriculum and the fulfillment of the requirements of independent work of students. The results of current control are the basic information for determining the estimation during the conduct of the offset and amount to 60% when determining the final score from the given discipline on the exam (differentiated offset). Assessment of current students' progress is carried out at each practical (laboratory or seminary) session on a 4-point scale using approved assessment criteria for the relevant discipline and recorded in the journal of academic achievement. It takes into account all types of work and a list of competencies envisaged by the curriculum and methodological development for the study of the topic. The student should get an assessment on each topic. The aggregate of knowledge, abilities, skills, and other competences acquired by a student of higher education in the process of studying in each subject of the discipline is roughly evaluated according to the following criteria:

- 5 / "excellent" - the student immaculately mastered the theoretical material of the subject, demonstrates deep and comprehensive knowledge of the relevant topic, the main provisions of scientific sources and recommended literature, logically thinks and builds the answer, freely uses the acquired theoretical knowledge in the analysis of practical material, expresses his attitude to some or other problems, demonstrates a high level of mastering of practical skills;

- 4 / "good" - the student has well mastered the theoretical material of the class, possesses the main aspects from the primary sources and the recommended literature, reasonably teaches it; has practical skills, expresses his thoughts on certain problems, but some inaccuracies and errors in the logic of presentation of theoretical content or in the implementation of practical skills are assumed;

- 3 / "satisfactory" - the student has mastered the theoretical knowledge of the educational subject, is oriented in the primary sources and recommended literature, but is unconvincingly responsible, confuses the notion, additional questions cause the student insecurity or lack of stable knowledge; answering questions of a practical nature, reveals inaccuracies in knowledge, does not know how to evaluate facts and

phenomena, associate them with future activities, suppose mistakes in the implementation of practical skills;

- 2 / "unsatisfactory" - the student has not mastered the educational material of the topic, does not know the scientific facts, definitions, is almost not oriented in the primary sources and recommended literature, there is no scientific thinking, practical skills are not formed.

Control works for full-time students can be conducted in the form of testing; solution of practical tasks; solution of practical situations; demonstration of practical skills.

In case of passing a practical (laboratory or seminary) lesson, the student is required to complete his full work within 2 weeks (14 calendar days) according to the schedule of practical classes of the department, but not later than the last day of the graduation week in the corresponding semester. If a student has missed more than 3 practical classes, he should receive a permit for their work in the relevant dean's office.

Workout is carried out by preliminary recording of students at the department in the corresponding journal. The order of working out missed classes is determined by the department. The department is responsible for the uniformity of staffing and determines the number of regular lecturers to ensure that students practice their practical classes. Duration and criteria for assessing students' knowledge when working out practical classes should be the same as in the corresponding occupation.

A note on the practice of practical classes and assessment of another teacher enters into the Journal of Practice Department of practical training, which is the basis for the inclusion of classes in the Journal of Student Visits and Student Records. The current control of the results of the tasks of independent work is carried out during the current control of the topic in the relevant class.

The criteria for evaluating each component of the current control and the specific forms of control measures are defined in the curriculum and are reflected in the relevant methodological materials. The department informs students about the course of the course, the content and criteria of the current control in the first class on discipline.

The results of the evaluation of the student's work during the semester should be documented in the Journal of Student Visits and Student Tracking, as well as included in the examination report, student's student card, student's student book. During the semester students undergo control, course work, individual tasks stored on the department for one year.

SUMMARY CONTROL

RESULTS OF EDUCATIONAL ACTIVITIES OF STUDENTS

Final control is carried out with the aim of evaluating the results of educational activities at a certain level of higher education within a specialty or at individual completed stages according to the national scale and the ECTS scale. Final control includes semester control and certification of a higher education qualification for the compliance of its competencies with the requirements of higher education standards.

The frequency and timing of the final controls are determined by the curriculum of training specialists, and the specific forms of their conduct - a program of academic discipline.

In the case when a student is studying on an individual curriculum, he may, according to the order of the rector, be given a separate schedule for carrying out the control measures.

Semester control of a certain discipline is a compulsory form of evaluation of student learning outcomes. It is conducted in accordance with the curriculum in the form of a semester exam, a differentiated credit or credit in terms set by the schedule of the educational process and in the amount of educational material determined by the program of academic discipline.

The procedure and method of conducting final control should be determined by the program of the discipline, control methods should be standardized and include the control of theoretical and practical training.

Semester final examination (semester exam, differentiated credit or credit) allows students who have completed all types of work, tasks specified in the curriculum for the semester with the corresponding academic discipline, have visited all the practical (laboratory, seminar) training sessions envisaged by the curriculum. scored for the current achievement the number of points, not less than the minimum (see section 5 of this Regulation for more details).

For students who have missed classroom instruction, it is allowed, with the permission of the dean, to work out academic debts to a certain defined term within the semester.

Semester is a form of final control, which consists in assessing the student's mastering of the training material solely on the basis of the results of certain types of work on the practical, seminary or laboratory sessions.

A semester certificate from a separate discipline is conducted after the completion of its study, before the beginning of the examination session. The credits are presented by the teachers who conducted practical, seminar and other classes in the training group. The semester deposit is planned in the absence of the exam and does not require the mandatory presence of students.

Students will earn a score if the average score of the current achievement during the semester is not less than "3" (120 points on a 200-point scale). The entry is entered into the student's student book and in the examining note.

The purpose of the assessment and the procedure for crediting.

The procedure for evaluating the results of students' educational activities is oriented on the requirements of the European Credit Transfer and Accumulation System (ECTS) and aims to measure the direct effects, effectiveness and long-term effects of the implementation of educational (educational and professional) programs for the training of masters of the branch 22 "Health".

The ECTS Credit (ECTS) is the unit of measure of the academic load of the higher education applicant required to achieve the (expected) learning outcomes. ECTS credits (ECTS) are awarded to qualifications or educational programs in general, as well as to their educational components. Several rating scales are used in the University's educational process: a multi-point (200-point) scale, a traditional 4-point scale, and an ECTS rating scale. The results are converted from one scale to another according to the following rules.

When assessing the absorption of each topic from all disciplines of the curriculum for the current educational activity, the student is presented with grades on the 4-point ballroom (traditional national scale) (5 "excellent", 4 "good", 3 "satisfactorily", 2- " unsatisfactory "), taking into account the approved evaluation criteria for the relevant discipline. It takes into account all types of work envisaged by the curriculum. The student should get an assessment on each topic. Forms of assessment of current educational activities should be standardized and include the control of theoretical and practical training. Shown on a traditional scale of evaluation are converted to points. Converting current achievement in points for disciplines, the final form of which is the score of the maximum number of points that a student can gain for his current academic activity in the study of discipline is 200 points.

The minimum number of points that a student should collect for his current educational activity for enrollment of the discipline is 120 points.

The calculation of the number of points is based on the student's assessment of the traditional scale during the study of the discipline during the semester, by calculating the average arithmetic (CA) rounded up to two decimal places. The resulting value is converted to a score on a multi-scale scale in the following way:

$x = (CA \times 200) / 5$

Estimation of individual independent work of the student for participation in the reports at student conferences and olympiads, especially with the receipt of prize places, for the publication of scientific papers, for the preparation of analytical reviews with presentations, for the writing of a scientific essay on the review of contemporary scientific literature on the subject of discipline in ECTS, which are added to the main points for the student's IPD in discipline as encouraging (at the

student's request) in an amount not exceeding 10 (the sum of the points should not be exceeded by 120 points).

Criteria for evaluating practical skills

The number of skills	´5ª	´4ª	´3ª	The answer for the tickets of the practical part	For each practical skill the student receives from 5 to 8 points, which corresponds to: "5" - 8 points; "4" - 6.5 points; "3" - 5 points.
1	8	6,5	5		
2	8	6,5	5		
3	8	6,5	5		
4	8	6,5	5		
5	8	6,5	5		
	40	32,5	25		

Assessment of theoretical knowledge based on the items compiled on the department, which include all subjects of discipline.

Criteria for evaluating theoretical knowledge

Number of questions	´5ª	´4ª	´3ª	Oral answer for tickets that include the theoretical part of discipline	For each answer the student receives from 5 to 8 points, which corresponds to: "5" - 8 points; "4" - 6.5 points; "3" - 5 points.
1	8	6,5	5		
2	8	6,5	5		
3	8	6,5	5		
4	8	6,5	5		
5	8	6,5	5		
	40	32,5	25		

II look - In case when the evaluation of practical skills is performed according to the criteria "fulfilled", "did not fulfill", then the evaluation of theoretical knowledge is carried out as follows.

Assessment of theoretical knowledge, if practical skills are evaluated according to the criteria "fulfilled", "not fulfilled"

Number of questions	´5ª	´4ª	´3ª	Oral answer for tickets that include the theoretical part of discipline	For each answer a student receives from 10 to 16 points, which corresponds to: "5" - 16 points; "4" - 13 points; "3" - 10 points.
1	16	13	10		
2	16	13	10		
3	16	13	10		
4	16	13	10		
5	16	13	10		
	80	65	50		

Tasks for practical and vocational training that reflect skills and abilities in the management of thematic patients, evaluation of the results of laboratory and instrumental research methods for the purpose of diagnosis and choice of therapeutic tactics, which are defined in the lists of work curriculum disciplines (RNPD) and OCX specialties. Diagnostic and emergency assistance tasks. Execution of medical manipulations on the List 5 "Composite branch standards of higher education".

Assessment of the discipline "Traumatology and Orthopedics"

Assessment of the results of studying the discipline is carried out immediately after the differentiated score. The score from the discipline is defined as the sum of points for the IPA and the score and is min-120 to max-200. The correspondence of the marks on the 200 ball scale, the four-point (national) scale and the scale of the ECTS.

Conformity of marks by 200 ball scale

the four-point (national) scale and the scale of the ECTS

Rating for 200 points scale	ECTS Score	four-point (national) scale
180ñ200	A	Excellent
160ñ179	B	Good
150ñ159	C	Good
130ñ149	D	Satisfactory

120ñ129	E	Satisfactory
Less than 120	F, Fx	Not satisfactory

A score from the discipline is presented only to students who have taken all the final control classes.

Students who do not meet the requirements of the syllabus curriculum are rated FX if they were admitted to scoring or but failed to score. The F score is displayed to students who are not admitted to the score.

7. THE LIST OF PRACTICAL SKILLS AND THE INCIDENTS WHICH A STUDENT MUST HAVE BEFORE EDUCATION

1. To examine patients with injuries and diseases of the support and movement system.

2. Run a temporary stop of external bleeding.

3. Perform anesthesia of the fracture site of the diaphysis of the long bone.

4. To provide transport immobilization with standard tires.

5. Perform medical immobilization with simple gypsum bands (distal upper and lower extremities).

6. Assess the condition of the limb in the plaster band.

7. Remove the gypsum bandage.

8. List of questions for current and final control

1. The main complaints of the patient with a fracture of the limb bones.

2. Main anatomical signs of damage to the support and movement system.

3. Types of curvature of the axis of the upper and lower limbs.

4. Cognitive points and lines that determine when examining an orthopedic and traumatic patient.

5. How is the comparative dimension of the length of the upper and lower extremities?

6. What are the main types of limb contractions?

7. How to determine the amplitude of active and passive movements in the joints of the limb?

8. Types of limitation of joints movements.

9. What additional examinations can be used for examination of patients with injuries and diseases of the support and movement system?

10. Mechanism of occurrence of fracture of long bones.

11. Classification of fractures of long bones.

12. Types of displacement of chips in the fracture of long bones.

13. On the basis of which symptoms can you diagnose a fracture?

14. Process of reparative regeneration of bone tissue during fracture.

15. Basic principles of treating bone fracture.

16. Indications and the principle of applying a fixative method of treatment of a fracture.

17. Indications and principle of application of an extensive method of treatment of a fracture.

18. Indications and the principle of the use of an operative method of treatment of a fracture.

19. Indications and principle of application of compression-destructive method.

20. To define definition of "dislocation" and its classification depending on time.

21. Mechanism of occurrence of dislocation.

22. Pathomorphological changes in the joint and the surrounding woven in dislocation.

23. General clinical symptoms of dislocation.

24. General principles of treatment of dislocation.

25. Mechanism of shoulder dislocation, classification, diagnosis and treatment.

26. The usual dislocation of the shoulder and the causes of its formation.

27. Treatment of the usual dislocation of the shoulder and its prophylaxis.

28. Classification of dislocation of the forearm and mechanism of its formation.

29. Diagnosis of dislocation of the forearm and its treatment.

30. Classification of hip dislocation and mechanism of its formation.

31. Clinic, diagnostics and treatment of hip dislocation.

32. Dislocation of the leg. The mechanism of occurrence, diagnosis and treatment.

33. Classification of the fracture of the ribs and the mechanism of its formation.

34. Clinic, diagnostics and treatment of isolated fracture of ribs.

35. Clinic, diagnostics and treatment of multiple fracture of ribs.

36. Elemental fracture of ribs. Clinics, diagnostics and treatment methods.

37. Surgical fracture - clinic, diagnostics, treatment.

38. Collarbone fracture. Mechanism of education, classification, clinic, diagnostics.

39. Methods of treating the fracture of the collarbone and indications to them.

40. Dislocation of acromial and sternal end of collarbone, mechanism of formation, clinic, diagnostics and treatment.

41. The mechanism of a fracture of the shoulder blade.

42. Clinic, diagnostics and treatment of fracture of the shoulder blade.

43. Mechanism of the origin of the fracture of the proximal humerus and its classification.

44. Clinic, diagnostics and treatment of fracture of the proximal humerus.

45. Changes in shoulder diphysis, clinic, diagnosis and treatment.

46. Neck fracture of the humerus, mechanism of origin, classification, clinic, diagnosis and treatment.

47. Fractures of the growth of the humerus, mechanism of origin, clinic, diagnosis, treatment.

48. Fractures of the elbow appendix, mechanism of origin, clinic, diagnosis, treatment.

49. Indications for operative and conservative treatment of the fracture of the elbow appendix.

50. Breakthrough of the head of the radial bone, mechanism of origin, clinic, diagnosis, treatment.

51. Classification of fractures of the bones of the forearm, mechanism of occurrence, peculiarities of displacement of fragments with diaphyseal fracture.

52. Isolated bone fracture of the forearm, clinic, diagnosis, treatment.

53. Diaphyseal fractures of both bones of the forearm, clinic, diagnosis, treatment.

54. Damage of Montage and Galiaca, clinic, diagnosis, treatment.

55. Classification, mechanism of origin, clinic, diagnosis of fractures of the radial bone in a typical place.

56. Treatment of a fracture of a radius in a typical place.

57. Clinic, diagnostics and treatment of a fracture of a wrist bone and a cake of a brush.

58. Clinic, diagnostics and treatment of the fracture of the heel bones and phalanges of the fingers.

59. Damage of flexor and flexor tendons, clinic, diagnosis, treatment.

What is the front endurance complex and the back persistent complex of the spine?

61. What is the mechanism of lesions of the spine?

62. Classification of damage to the spine.

63. Clinic, diagnostics, treatment of vertebral appendages, osteous, transverse, articular and articular.

64. Clinic, diagnostics and treatment of complicated dislocation and fracture of the vertebrae.

65. Clinic, diagnostics, treatment of uncomplicated compressive fracture of vertebrae.

66. Clinic, diagnostics, treatment of uncomplicated dislocation and fracture of vertebrae.

67. Prevention of complications in patients with complicated damage to the spine.

68. Mechanogenesis and pelvic fracture classification.

69. Features of shock and intra-tissue bleeding during pelvic fracture and their treatment.

70. Technique of the subtransformation blockade for Shkolnikov-Selivanov.

71. Clinic, diagnostics and treatment of a regional fracture.

72. Clinic, diagnosis and treatment of pelvic fracture with violation of the continuity of the pelvic ring.

73. Clinic, diagnosis, treatment of pelvic fracture without disturbing the pelvic ring.

74. Clinic, diagnostics and treatment of the fracture of the acetabulum.

75. Clinic, diagnosis and treatment of pelvic fracture combined with damage to pelvic organs.

76. Mechanogenesis, classification and clinic of the fracture of the proximal femur.

77. Treatment of a fracture of a cervix of a femur and a swirling area.

78. Mechanogenesis, clinic, diagnostics and treatment of the diaphyseal fracture of the femur.

79. Mechanogenesis, classification of fracture of the femur.

80. Clinic diagnostics and treatment of a femoral bone fracture.

81. Mechanogenesis of damage of ligament of the knee joint. Clinic, diagnostics and treatment.

82. Clinic, diagnostics, treatment of tears of the tendon of the direct muscle of the thigh and of the own ligament of the supraclone.

83. Mechanogenesis of knee meniscus damage: clinic and diagnostics in the early and late stages of treatment.

84. The mechanism of the onset of the fracture of the supraclone and its classification.

85. Impressions for conservative and operative treatment of a percutaneous fracture.

Mechanogenesis of the fracture of the tibia and its classification.

87. Clinic, diagnostics, treatment of the fracture of the tibia of the tibia.

88. Mechanogenesis of the diaphyseal fracture of the shin bones and its classification.

89. Clinic, diagnostics and treatment of isolated diaphyseal fracture of the small-thoracic bone.

90. Clinic, diagnostics and treatment of the isolated fracture of the tibia.

91. Clinic, diagnosis and treatment of fracture of both legs of the shin.

92. Damage of heel tendon. Clinic, diagnostics and treatment.

93. Mechanism of origin, clinic, diagnosis and treatment of damage to the tibia joint.

94. Mechanogenesis and classification of the tibia-leg joint.

95. Clinic for diagnostics and treatment of isolated fracture of ankles.

96. Clinic diagnostics and treatment of injuries such as Dupyutren and Detox.

97. Fracture of the heel and abdominal bones, damage mechanism, clinic, diagnosis and treatment.

98. Fractures of mold bones and fingers, clinic, diagnosis and treatment.

99. Pathogenesis of osteochondrosis of the spine and its stage.

100. Clinic, diagnostics of osteochondrosis of the spine, cervical, thoracic and lumbar sections.

101. Indications for conservative treatment of spinal osteochondrosis, its main methods.

102. Indications for surgical treatment of spinal osteochondrosis and types of surgical interventions.

103. Etiology, pathogenesis of deforming arthrosis and its classification.

104. Clinical and X-ray stages of deforming arthrosis.

105. Indications for the conservative treatment of deforming arthrosis, its methods.

106. Indications for surgical treatment of deforming arthrosis and types of surgical interventions.

107. Etiology of spastic paralysis and its main clinical signs.

108. Indications for conservative and operative treatment of spastic paralysis, their methods.

109. Flabby paralysis - etiology, clinical signs.

110. Conservative and operative treatment of flabby paralysis.

111. Etiology, pathogenesis, clinical signs, congenital muscle cranium.

112. Conservative and operative treatment of congenital muscle crying, indications and methods.

113. Definition of the concept of "scoliosis" and the classification of scoliosis by etiology.

114. The pathogenesis of the scoliosis disease of its degree and clinical signs.

115. Basic principles of early recognition of scoliosis.

116. Conservative and operative methods of treatment of scoliosis and scoliosis.

117. Wound posture and their clinical signs. Etiology and principles of treatment.

118. Clinical and radiological signs of hip dysplasia.

119. Treatment of hip dysplasia in childhood.

120. Clinical and radiological signs before dislocation of the thigh.

121. Treatment before thigh dislocation in newborns, first year of life and children older than 3-4 years.

122. Clinical and X-ray diagnostics of congenital hip dislocation up to 1 year.

123. Features of treatment of congenital hip dislocation in different age groups.

124. Clinical signs of congenital clubfoot and its classification.

125. Conservative treatment of congenital clubfoot, its methods and indications.

126. Operative treatment of congenital clubfoot, its methods and indications.

127. Clinical and anatomical forms of syndactylia and polyadkilty. Treatment.

128. What are the anatomical and physiological features of the foot associated with the emergence of static deformations?

129. Types of acquired static deformations of the foot.

130. Clinic, diagnostics, treatment of longitudinal flat feet.

131. Clinic, diagnostics, treatment of transverse flat stomach.

132. Deviation of the first toe outward - etiology, pathogenesis, methods of treatment.

133. Hamsters deformation of the fingers of the foot and its treatment.

134. The role of prosthetics in the system of rehabilitation of an orthopedist - traumatologic patients.

135. Basic indications for urgent and planned limb amputation.

136. Methods and methods of limb amputation. Features of the formation of the lower limb's tufts.

137. Types of limb prostheses and their characteristics.

138. Orthopedic appliances, their purpose and indications for use.

Methodical support

1. Work curriculum of discipline;

2. Plans for lectures, practical classes and independent work of students;

3. Theses of lectures on discipline;

4. Methodological developments for the teacher;

5. Methodical instructions for practical classes for students;

6. Methodological materials providing independent work of students;

7. Test and control tasks for practical classes;

8. Questions and tasks to control the mastering of the section;

9. The list of questions to the exam or set, the task to test the practical skills during the offset.

LIST OF BASIC LITERATURE

1. Orthopedics and Traumatology / Ed. prof. O.M. Khvisyuk. - Kh., 2013. 656 p.

2. Traumatology and orthopedics: a textbook for students of higher medical schools / ed. Needles GG, Buryanova OA, Klimovitsky VG - Vinnitsa: The New Book, (Ukr.) 2014 - 416 pp.

3. Traumatology and orthopedics: a textbook for students of higher medical educational institutions, ed. The Needles of GG, Buryanova AA, Klimovitsky VG- Vinnitsa: The New Book, (Russian) 2016. - 448s.

4. Traumatology and orthopedics: a textbook for students of higher medical schools / ed. The Needles of GG, Buryanova OA, Klimovitsky VG - Vinnitsa: The New Book, (Eng.) 2018. - 400 p.

5. Bitschuk D.D., Istomin AG, Khimenko MF, Mariukhnich A.O. Traumatology and orthopedics: A collection of test tasks for non-classroom students for licensing exams: STEP 2. - Kharkiv: DKhMU NTU "KhPI". 2004 - 224-s.

6. Methodological instructions for writing a medical history of the disease in the management of patients with injuries and diseases of the OAS. / M.S. Klepach, MI Pustovoit, VP Omelychuk, etc. - Methodical guidelines - Ivano-Frankivsk 2002 40s.

7. Olexa A.P. Traumatology and Orthopedics. - K .. High School 1993 - 511s.

8. Sklyarenko V.F. Traumatology and orthopedics. - K .. Health 2005 - 328s.

9. Trubnikov VF Diseases and injuries of ORA. - K .. Health, 1984 - 328s.

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11. Venger V.F., Serdyuk V.V., Rashed Mochamad. Traumatology and orthopedics. - Odessa: Druk. 2006 - 248p.

LIST OF SUPPLEMENTARY LITERATURE

1. Ankin LN, Ankin M.L. Practice of osteosynthesis and endoprosthesis. Kiev 1994. - 304 pp.

2. Babosha VA, Klimovitsky VG, Pasternak VN and others. Pelvic trauma (Clinic, diagnosis and treatment). Donetsk: Donechchina, 2000. - 176 pp.

3. Shumada I.F., Suslova O.Ya., Stenula V.I., Moroz N.F., Krasyuk A.P. Diagnosis and treatment of degenerative - dystrophic joint damage. K .. Health, 1990. - 200s.

4. Ipatov AV, Sergienko EV, Maruni VV Methodology of compilation of an individual program for medical rehabilitation of the disabled, management of the process of its implementation and control: Educational and methodical manual: Dnipropetrovsk: Thresholds, 2003. - 105 p.

5. Knys P.T., Korolei V.I., Tolstopyatov B.A. Tumors of cartilage tissue. - Kiev: Health, 1986. - 200 p.

6. Korzh AA, Kovalenko VN, Korzh N. A., and others. Diagnostics and conservative treatment of diseases and injuries ORA: Directory: book 3 Articles. - X: Basis. 1998. - 149 pp.

7. Korzh MO, Dedukh N.V. Zhupanets IA (Ed ..) Osteoarthritis. Conservative Therapy. Kharkiv: Flag. 1999. - 336 p.

8. Levit K., Manual therapy in the framework of medical rehabilitation. Per. with a boot. - Vinnytsya: Vinnytsya State Medical University, 1997. - 440 p.

9. Osseoporosis: epidemiology, clinic, diagnosis, prophylaxis and treatment / under the .. ed. Korzha N.A., V.V.Povoroznyuk., N.V. Deduch., IA Zupanets - X .: Gold of the page. 2002 - 648 pp.

10. Status and prospects of the development of orthopedic and traumatological help in Ukraine / under the ped .. Gayko G.V. - Kiev 2001 - 184 pp.

11. Typical rehabilitation program for disabled persons with the consequences of upper limb injuries: Methodical recommendations / Korzh M.O., Yaremko D.O., Shevchenko O.G. etc. - Kharkiv. 2001. - 23 p.

12. Trubnikov VF, Istomin G.P. The first medical aid to victims of road traffic accidents. Kharkiv: Basis. 1991. - 128 pp.

13. Fishchenko V.Ya. Scoliosis - Makeevka: Poly Press. - 2005 - 568 pp.

14. Muller V., Allgjver v., Schneider R., Willenger H. Manual of Internal Fixation. - Springer Verlag. 1992 - 752p.

15. Criteria, rules and procedures for evaluating the results of students' educational activities. Zimenkovsky BS, Gzhegotsky M.R. etc. - Lviv 2018. - 66 p.