Federal State Budgetary Educational Institution Higher Education
"Privolzsky Research Medical University"
Ministry of Health of the Russian Federation

APPROVED
Vice-Rector for Academic Affairs
_____ E.S. Bogomolova
31 August 2021

WORKING PROGRAM

Name of the academic discipline: TRAUMATOLOGY and ORTHOPEDICS

Specialty: 31.05.01 GENERAL MEDICINE

Qualification: GENERAL PRACTITIONER

Faculty: MEDICAL FACULTY

Department: TRAUMATOLOGY, ORTHOPEDICS AND NEUROSURGERY named after M.V. Kolokoltsev

Mode of study: FULL-TIME

Labor intensity of the academic discipline: 180 academic hours

Nizhny Novgorod
2021

The working program has been developed in accordance with the Federal State Educational Standard for the specialty 31.05.01 "GENERAL MEDICINE" approved by Order of the Ministry of Science and Higher Education of the Russian Federation No. 988 of August 12, 2020.

Developers of the working program:
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The program was reviewed and approved at the department meeting (protocol No. 7, dated 25.05.2021)

Reviewers:
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2. Bazaev A.V., MD, Professor, Head of the Department of General, Operative Surgery and Topographic Anatomy named after A.I. Kozhevnikov of the Federal State Budgetary Educational Institution of Higher Education "PIMU" of the Ministry of Health of Russia.

Acting Head of the Department,
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(Signature)

25.05.2021

AGREED
Deputy Head of EMA ph.d. of biology _____ Lovtsova L.V.
(Signature)

25.05.2021

1. The purpose and objectives of mastering the academic discipline "Traumatology, Orthopedics"

1.1. The purpose of mastering the discipline "Traumatology, Orthopedics": the graduate must have the following competencies:

1.2 Tasks of the discipline:

- **UC-1.** Able to realize critical analysis of problem situations based on a systematic approach, develop strategy actions.
- **GPC-5.** Able to provide first aid on the territory of a pharmaceutical organization in case of emergency conditions for visitors before the arrival of an ambulance team.
- **GPC-7.** Able to prescribe treatment and monitor its effectiveness and safety.
- **PC -1.** Able to assess the condition of a patient requiring medical care in emergency or emergency forms.
- **PC-5.** Able to collect complaints, anamnesis of the patient's life and illness, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation), formulate a preliminary diagnosis and draw up a plan for laboratory and instrumental examinations of the patient, including diagnostic studies using modern technical means and digital technologies
- **PC-6.** Able to refer the patient for laboratory, instrumental examination, for consultation with specialist doctors in the presence of medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care, as well as refer the patient to provide specialized medical care in a stationary setting or in a day hospital if there is medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.

1.3 Requirements to the deliverables of mastering the discipline

As a result of completing the discipline, students should:

Know:

- etiology, pathogenesis and measures for the prevention of injuries and the most common orthopedic diseases; modern classification of injuries and diseases;
- clinical symptoms of damage to the musculoskeletal system, head and cranial cavity;
- clinical picture, features of the course and possible complications of the most common diseases of the musculoskeletal system, occurring in a typical form in different age groups;
- diagnostic methods, diagnostic capabilities of methods of direct study of the patient of traumatological and orthopedic profile, modern methods of clinical, laboratory, instrumental examination of victims and patients, including X-ray methods;
- methods of treatment and indications for their use;
- features of first aid for road injuries;

Be able to:

- determine the status of the patient: collect anamnesis, conduct a survey of the patient and / or his relatives, conduct a physical examination of the patient; assess the patient's condition in order to make a decision on the need to provide him with medical care;
- examine patients with various traumatic injuries and diseases of the musculoskeletal system;
- outline the scope of additional studies in accordance with the nature of the injury or illness to clarify the diagnosis and obtain a reliable result;
- formulate a clinical diagnosis;
- choose an individual type of care for the treatment of the patient in accordance with the situation: primary care, ambulance, hospitalization;

Possess:

- methods of general clinical examination;
- an algorithm for making a preliminary diagnosis with the subsequent referral of the patient to the appropriate specialist doctor;
- algorithm of detailed clinical diagnosis.

2. Position of the academic discipline in the structure of the General Educational Program of Higher Education (GEP HE) of the organization.

2.1. The discipline Traumatology, Orthopedics refers to the core part (or the part formed by the participants of educational relations) of Block 1 of GEP HE (Academic discipline index).

The discipline is taught in X and XI semester 5-6 year of study.

2.2. The following knowledge, skills and abilities formed by previous academic disciplines are required for mastering the discipline:

Anatomy

(Name of discipline/practice)

Topographic anatomy and operative surgery

(Name of discipline/practice)

General Surgery

(Name of discipline/practice)

2.3. Mastering the discipline is required for forming the following knowledge, skills and abilities for subsequent academic disciplines:
the study of the discipline is completed in the framework of the program of pre-diploma education.

3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

No	Competence CODE	Content of the competence (or part of it)	Code and name of the competency achievement indicator	As a result of studying the discipline, students must:		
				To know	Can	Possess
1.	**UC-1.**	Able to carry out critical analysis of problem situations on the basis of a systematic approach, to develop an action strategy	ID-1 UC-1.1 Ability to analyze the etiology, pathogenesis, clinic of the most common injuries and orthopedic diseases. ID-2 UC-1.2 Develop a strategy for examination and preliminary diagnosis with subsequent referral to the appropriate specialist doctor of the victim with injuries of the musculoskeletal system and orthopedic patient	etiology, pathogenesis, clinic, diagnosis, methods of treatment and measures for the prevention of the most common injuries and orthopedic diseases	conduct an examination of the victim with injuries of the musculoskeletal system and an orthopedic patient; evaluate the data obtained	methods of general clinical examination; algorithm for making a preliminary diagnosis with subsequent referral to the appropriate specialist doctor
2.	**GPC-5.**	Able to evaluate morphofunctional, physiological states and pathological processes in the human body to solve professional problems	ID-1 GPC-5.1 Ability to assess the pathogenesis, clinical manifestations of orthopedic diseases and injuries of the musculoskeletal system. ID-2 GPC-5.2 Ability to perform a general clinical examination with injuries of the musculoskeletal system and the most common orthopedic diseases. ID -3 GPC-5.3 Ability make a preliminary diagnosis followed by referral to the appropriate specialist doctor	pathogenesis, clinical manifestations of orthopedic diseases and injuries of the musculoskeletal system	formulate a diagnosis and outline a plan for additional research methods for injuries of the musculoskeletal system, and the most common orthopedic diseases	methods of general clinical examination; algorithm for making a preliminary diagnosis with subsequent referral to the appropriate specialist doctor
3.	**GPC-7.**	Able to prescribe treatment and monitor its effectiveness and safety	ID-1 GPC-7.1 Knows modern methods of conservative and surgical treatment of patients with the most common injuries of the musculoskeletal system and indications for their use, possible complications of injuries and their	methods of conservative and surgical treatment, medical indications for the use of	develop a treatment plan for patients with injuries and the most common orthopedic diseases; prevent and	an algorithm for developing a treatment plan for patients with injuries and the most common

			treatment. ID-2 GPC-7.2 Able to develop a treatment plan for patients with injuries and the most common orthopedic diseases in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; prevent or eliminate complications that have arisen as a result of diagnostic or therapeutic manipulations ID-3 GPC-7.3 Has practical experience in developing a treatment plan for patients with the most common injuries and diseases of the musculoskeletal system; providing emergency and emergency medical care to patients with severe injuries, in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; selection and prescription of drugs, medical devices for the treatment of patients with injuries and diseases of the musculoskeletal system in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; evaluation of the efficacy and safety of the use of drugs, medical devices and non-drug treatment in patients with injuries and the most common orthopedic diseases; selection and appointment of non-drug treatment to patients with the most	medical devices for injuries of the musculoskeletal system and orthopedic diseases; groups of drugs used to provide medical care for fractures and the most common orthopedic diseases	eliminate possible complications of treatment	orthopedic diseases; evaluation of the efficacy and safety of the use of drugs, medical devices and non-drug treatment in patients with the most common orthopedic diseases; measures for the prevention and treatment of complications arising as a result of therapeutic manipulations

			common injuries and orthopedic diseases in accordance with the procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care; prevention and treatment of complications arising from diagnostic or therapeutic manipulations			
4.	**PC -1.**	Able to assess the condition of a patient requiring medical care in emergency or emergency forms	ID-1 PC-1.1 Knows: etiology, pathogenesis and clinical picture of life-threatening conditions in injuries of the musculoskeletal system; method of physical examination (examination, palpation, percussion, auscultation). ID-2 PC-1.2 Can: identify clinical signs of life-threatening conditions in injuries of the musculoskeletal system that require medical care in emergency or emergency forms.	etiology, pathogenesis and clinical manifestations of life-threatening conditions in injuries of the musculoskeletal system; basics of providing various types of medical care in emergency situations	identify life-threatening conditions in injuries of the musculoskeletal system (conduct an examination of the victim with injuries of the musculoskeletal system; evaluate the data obtained)	algorithm for performing basic diagnostic and therapeutic measures to provide first aid for injuries (transport immobilization, temporary stop of external bleeding)
5.	**PC-5.**	Able to collect complaints, anamnesis of the patient's life and illness, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation), formulate a preliminary diagnosis and draw up a plan for laboratory and instrumental examinations of the patient, including	ID-1 PC-5.1 Knows: Legislation of the Russian Federation in the field of health protection, regulatory legal acts and other documents determining the activities of medical organizations and medical workers; methods of collecting complaints, anamnesis of trauma and illness of the patient; methods of complete physical examination of the patient (examination, palpation, percussion, auscultation); etiology, pathogenesis and pathomorphology,	method of collecting complaints, anamnesis of injuries and orthopedic disease of the patient; method of complete physical examination of the patient (examination,	collect complaints, anamnesis of the patient's life and illness; conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation, measurements of limb lengths,	algorithm for making a preliminary diagnosis with subsequent referral to the appropriate specialist doctor

		diagnostic studies using modern technical means and digital technologies	clinical picture of injuries and diseases of the musculoskeletal system; methods laboratory and instrumental studies to assess the state of health, medical indications for research, rules for interpreting their results. ID-2 PC-5.2 Can: collect complaints, anamnesis of the patient's life and illness and analyze the information received; conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results; determine the order of volume, content and sequence of diagnostic measures	palpation, percussion, auscultation, measurement of limb lengths, amplitude of movements in the joints, detection of axial deformities); methods of laboratory and instrumental studies in traumatology and orthopedics (X-ray, CT, MRI, ultrasound)	amplitude of movements in the joints, detection of axial deformities) and interpret its results	
6.	**PC-6.**	Able to refer the patient for laboratory, instrumental examination, for consultation with specialist doctors in the presence of medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care, as well as refer the	ID-1 PK-6.1 Knows: general issues of organizing medical care for traumatological and orthopedic patients, methods of laboratory and instrumental research in traumatology and orthopedics; medical indications for research, rules for interpreting their results; procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care ID-2 PC-6.2 Can: justify the need for radiological examination of a traumatological-orthopedic patient; justify the need and scope of laboratory and instrumental examination of the	general issues of organization of medical care for traumatological and orthopedic patients; methods of radiological, laboratory and instrumental studies in traumatology and orthopedics; indications for research, rules for interpreting their	justify the need for radiological examination of a traumatological-orthopedic patient; justify the need and scope of laboratory and instrumental examination of the patient	algorithm for referring a traumatological-orthopedic patient for consultations with specialist doctors in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical

		patient to provide specialized medical care in a stationary setting or in a day hospital if there is medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	patient; justify the need to refer a traumatological-orthopedic patient for consultations to specialist doctors	results		care, taking into account the standards of medical care

4. Sections of the academic discipline and competencies that are formed when mastering them

No.	Competence code	Section name of the discipline	The content of the section in teaching units
1.	UC-1 GPC-5 PC-5 PC-6	General issues of traumatology and orthopedics	Lecture: 1. Introduction to traumatology and orthopedics. History of the subject. The social significance of the subject. Organization of traumatological and orthopedic care. 2. Regeneration of bone tissue. Violation of regeneration processes in fractures. 3. Basic principles and modern methods of fracture treatment. Clinical practical exercises: 1. Methods of examination of traumatological and orthopedic patients.
2.	UC-1 GPC-5 GPC-7 PC-1 PC-5 PC-6	Private traumatology	Lecture: 4. Polytrauma. Syndrome of prolonged compression. 5. Burns Clinical practical exercises: 2. Damage to the chest and shoulder girdle. 3. Shoulder injuries. 4. Damage to the forearm and hand. 5. Hip fractures. 6. Damage to the lower leg, ankle and foot. 7. Damage to the pelvis and pelvic organs. 8. Damage to the spine and skull. 9. Thermal damage
3.	UC-1 GPC-5 GPC-7 PC-5 PC-6	Adult Orthopedics	Lecture: 6. Bone tumors. 7. Degenerative-dystrophic diseases of the joints. 8. Osteochondrosis of the spine. Clinical practical exercises: 10. Deforming arthrosis and osteochondrosis of the spine.
4.	UC-1 GPC-5 GPC-7 PC-5 PC-6	Pediatric Orthopedics	Lecture: 9. Congenital deformities of the musculoskeletal system. Congenital dislocation of the hip. Clubfoot, torticollis. Clinical practical exercises: 11. Hip dysplasia. Congenital dislocation of the hip. 12. Clubfoot. Static deformities of the feet.

5. Volume of the academic discipline and types of academic work

Type of educational work	Labor intensity		Labor intensity by semester (AH) in semesters	
	volume in credit units (CU)	volume in academic hours AH)	10	11
Classroom work, including	2,34	84	44	40
Lectures (L)	0,5	18	12	6
Laboratory workshops (LP)	-	-	-	-
Practical exercises (P)	1,84	66	32	34
Seminars (C)	-	-	-	-
Student Independent Work (SIW)	1,66	60	28	32
Student's research work				
Intermediate certification of credit/exam *(specify type)*	exam 1	 36	credit -	exam 36
TOTAL LABOR INTENSITY	5	180	72	108

6. Content of the academic discipline

6.1. Sections of the discipline and types of academic work

No.	Semester No.	Name of the discipline section	Types of educational work* (in AC)					
			L	LP	P	C	SIW	Total
1.	10	General issues of traumatology and orthopedics	6	-	6	-	12	24
2.	10,11	Traumatology by segments	4	-	42	-	30	76
3.	10,11	Adult Orthopedics	6	-	6	-	12	24
4.	11	Pediatric Orthopedics	2	-	12	-	6	20
TOTAL:			18	-	66	-	60	144

* - L – lectures; LP – laboratory workshop; P – practical exercises; C – seminars; SIW- Student Independent Work.

6.2. Thematic schedule of educational work types:

6.2.1. Thematic schedule of lectures

No.	Name of lecture topics	Volume in AH	
		Semester 10	Semester 11
1.	Introduction to Traumatology and Orthopedics. History of the subject. The social significance of the subject. Organization of traumatological and orthopedic care.	2	
2.	Bone tissue regeneration. Violation of regeneration processes in fractures.	2	
3.	Basic principles and modern methods of treatment of fractures.	2	
4.	Polytrauma. Syndrome of prolonged compression.	2	
5.	Burns	2	
6.	Bone tumors.	2	
7.	Degenerative-dystrophic diseases of the joints.		2
8.	Osteochondrosis of the spine.		2
9.	Congenital deformities of the musculoskeletal system. Congenital dislocation of the hip. Clubfoot, torticollis.		2
	TOTAL - 18 AH	12	6

6.2.2. Thematic plan of laboratory workshops: not provided for in the curriculum

6.2.3. Thematic plan of practical classes:

No.	Name of topics of practical exercises	Volume in AH	
		Semester 10	Semester 11
1.	Method of examination of traumatological-orthopedic patients	6	
2.	Injuries to the chest and shoulder girdle	5	
3.	Shoulder injuries	5	
4.	Forearm and hand injuries	5	
5.	Hip fractures	5	
6.	Injuries to the lower leg, ankle and foot	6	

7.	Damage to the pelvis and pelvic organs		5
8.	Injuries to the spine and skull		5
9.	Burn Injury		6
10.	Deforming arthrosis and osteochondrosis of the spine		6
11.	Hip dysplasia. Congenital dislocation of the hip		6
12.	Talipes. Static deformities of the feet		6
	TOTAL (total - 66 AH)	32	34

6.2.4. The thematic plan of seminars: not provided for in the curriculum

6.2.5. Types and topics of student's individual work (SIW)

No.	Types and themes of CPC	Volume in AH	
		Semester 10	Semester 11
1.	Work with the literature on the studied section	16	20
2.	Writing medical histories	4	-
3.	Writing essays/ abstracts	4	8
4.	Preparation for participation in role-playing and business games	4	4
	TOTAL (total - 60 AH)	28	32

6.2.6. Research work of the student:

No.	Name of the topics of the student's research work	Semester 10,11 semesters
1.	History of the Nizhny Novgorod School of Traumatologists-Orthopedists	
2.	History of the Department of Traumatology, Orthopedics and Neurosurgery named after M.V. Kolokoltsev	
3.	A healthy lifestyle as a prevention of diseases of the musculoskeletal system	
4.	Road traffic injuries in the Nizhny Novgorod region	
5.	Habitual dislocation of the shoulder	
6.	Conservative treatment of ankle fractures	
7.	Pain in the humeroscapular region	
8.	Dorsopathies	

7. Types of assessment formats for ongoing monitoring and mid-term assessment

No p/n	Semester No.	Types of control	Name of section of academic discipline	Assessment tools		
				Types	Number of test questions	Number of test task options
1.	10	Current monitoring	General issues of traumatology and orthopedics	Viva, control test	20	20
2.	10	Current monitoring	Traumatology by segments	Viva, control test, medical history control	20	20
3.	11	Current monitoring	Adult Orthopedics	Viva, control test	20	20
4.	11	Current monitoring	Pediatric Orthopedics	Viva, control test	20	20

5.	11	Mid-term assessment (exam)	All sections	Tickets	3	25

8. Educational, methodological and informational support for mastering the academic discipline (printed, electronic publications, the Internet and other network resources)

8.1. List of main references:

№	Name according to bibliographic requirements	Number of copies
1	Traumatology and Orthopedics : textbook / [N. V. Kornilov]; ed. by N. V. Kornilov. - 3rd ed., add. and rework. - M.: GEOTAR-Media, 2014. (EBS "Student Consultant") http://www.studmedlib.ru/book/ISBN9785970430859.html	
2	Orthopedics: national leadership / Association of Traumatologists and Orthopedists of Russia; ed. S. P. Mironov, G. P. Kotelnikov. – 2-e ed., pererab. i dop. – M. : GEOTAR-Media, 2013. (electronic catalog of the NizhSMA library)	1
3	Military Field Surgery: A Textbook. / Ed. by E.K. Gumanenko. - 2nd ed., ispr. and addendum. - M.: GEOTAR-Media, 2015.- 768 p. (EBS «Student Consultant») http://www.studmedlib.ru/book/ISBN9785970431993.htm	
4	Medical rehabilitation : textbook / ed. A. V. Epifanov, E. E. Achkasov, V. A. Epifanov. – M. : GEOTAR-Media, 2015. – 672 p. (electronic catalog of the library of NizhSMA)	40

8.2. Further reading

№	Name according to bibliographic requirements	Number of copies
1	Traumatology and Orthopedics: A Textbook for Students. higher. uch. zaved. / ed. by G.M. Kavalersky - 2nd ed., pererab. i dop. - M. : Akademiya, 2008. - 624 p. - (Higher professional education) .	32
2	Traumatology and Orthopedics : textbook with CD / G. P. Kotelnikov, **S. P. Mironov**, **V. F. Miroshnichenko**. – M. : GEOTAR-Media, 2006. – 400 p. : tv. + 1 electric disc (CD-ROM)	37
3	Polytrauma. Emergency care and transportation / I.M.Ustyantseva [et al.]; ed. by V.V. Aghajanyan. – Novosibirsk: Nauka, 2008. – 320p.: ill., tv.	1
4	Burgener, Francis A. Radiation Diagnostics of Bone and Joint Diseases : Guide: Atlas / F. A. Burgener, M. Cormano, T. Pudas; ed. S. K. Ternovoy, A. I. Shekhter. – M. : GEOTAR-Media, 2011. – 552 p.	1
5	Korolev, S.B. Dictionary-reference of terms, eponyms, symptoms and syndromes in traumatology and orthopedics / S.B.Korolev. – Nizhny Novgorod: NGMA, 2007. – 260 p.: mik.	7
6	Emergency traumatology: a textbook / ed. by S.P. Mironov. - 2nd ed. – M.: Medicinskie informatserie, 2006. – 744 p.: tv.	4

8.3. List of methodological recommendations for independent work of students:

№	Name according to bibliographic requirements	Number of copies

1.	Yezhov, Yu.I. Examination of traumatological and orthopedic patients: educational and methodical manual /Yu.I.Ezhov, A.V.Melgunov, S.B.Korolev, O.A.Batalov. – Nizhny Novgorod: UNGU, 1996. – 49 p.	5
2.	Korolev, S.B. Plaster technique in the outpatient practice of a traumatologist: an educational and methodical manual / S.B. Korolev, N.B. Tochilina, S.P. Vvedensky. – Nizhny Novgorod: NGMA, 2006. – 27 p.	5 + digital copies
3.	Korolev, S.B. Basic terms in traumatology and orthopedics: a short dictionary-reference / S.B.Korolev. – Nizhny Novgorod: NGMA, 2006. – 108 p.	2
4.	Malyshev, E.E. Examination of the knee joint: a textbook / E.E.Malyshev, S.B.Korolev, E.S.Malyshev, V.V.Tarychev. – Nizhny Novgorod: NGMA, 2007. – 34 p.	5
5.	Korolev, S.B. Clinical and X-ray examination of a patient with pathology of the elbow joint: educational and methodical manual / S.B. Korolev, A.E. Shatalin, A.N. Abramenkov. – Nizhny Novgorod: NizhGMA, 2012. – 62 p.	10

8.4. Electronic educational resources for teaching academic subjects

8.4.1. Internal Electronic Library System of the University (IELSU)

Name of the electronic resource	*Brief description (content)*	*Access conditions*	*Number of users*
Internal Electronic Library System (IELSU)	Works of the teaching staff of the Academy: textbooks and teaching aids, monographs, collections of scientific works, scientific articles, dissertations, abstracts of dissertations, patents.	from any computer on the Internet, by individual login and password [Electronic resource] – Access mode: http://95.79.46.206/login.php	Unlimited

8.4.2. Electronic educational resources acquired by the university

Name of the electronic resource	*Brief description (content)*	*Access conditions*	*Number of users*
Electronic database "Student Consultant"	Educational literature + additional materials (audio, video, interactive materials, test tasks) for higher medical and pharmaceutical education. Publications are structured by specialties and disciplines in accordance with the current GEF HE.	from any computer on the Internet, by individual login and password [Electronic resource] – Access mode: http://www.studmedlib.ru/	PIMU General Subscription
Electronic library system "Bukap"	Educational and scientific medical literature of Russian publishing houses, including translations of foreign publications.	from any computer located on the Internet by login and password, from the computers of the Academy. Publications for which a subscription is issued are available for reading. [Electronic resource] – Access mode: http://www.books-up.ru/	PIMU General Subscription
“Bibliopoisk”	Integrated "single window" search service for electronic	For PIMU, access to the demo version of the	PIMU General Subscription

	catalogs, EBS and full-text databases. The results of the single search in the demo version include documents from domestic and foreign digital libraries and databases available to the university as part of a subscription, as well as from open access databases.	bibliopoisk search engine is open: http://bibliosearch.ru/pimu.	
Domestic electronic periodicals	Periodicals on medical subjects and on issues of higher education	- from the academy's computers to the electronic library platform eLIBRARY.RU -Logs mediasphere publishing house - from library computers or Provided library at the request of the user [Electronic resource] – Access mode: https://elibrary.ru/	
Международная наукометрическая база данных «Web of Science Core Collection»	Web of Science covers materials on natural, technical, social, humanitarian sciences; takes into account the mutual citation of publications developed and provided by Thomson Reuters; has built-in capabilities for searching, analyzing and managing bibliographic information.	With PIMU computers, access is free [Electronic resource] – Access to the resource at: http://apps.webofknowledge.com	With PIMU computers, access is free

8.4.3 Open Access Resources

Name of the electronic resource	*Brief description (content)*	*Access conditions*
Federal Electronic Medical Library (FEMB)	Includes electronic analogues of printed publications and original electronic publications that have no analogues recorded on other media (dissertations, abstracts, books, magazines, etc.). [Elektronnyi resurs] – Mode of access: http:// neb.rf/	from any computer on the Internet
Scientific Electronic Library eLIBRARY.RU	The largest Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of scientific articles and publications. [Electronic resource] – Access mode: https://elibrary.ru/	from any computer on the Internet.
Scientific electronic library of open access “CyberLeninka”	Full texts of scientific articles with annotations, published in scientific journals of Russia and the near abroad. [Electronic resource] – Access mode: https://cyberleninka.ru/	from any computer on the Internet
Russian State	Avtoreferaty, for which there are author's contracts	from any computer on

Library (RSL)	with permission for their open publication [Electronic resource] – Access mode: http://www.rsl.ru/	the Internet
Reference and legal system "Consultant Plus"	Federal and regional legislation, judicial practice, financial advice, comments on legislation, etc. [Electronic resource] – Access mode: http://www.consultant.ru/	from any computer on the Internet
Official website of the Ministry of Health of the Russian Federation	National Clinical Guidelines [Electronic resource] – Access mode: cr.rosminzdrav.ru - Clinical recommendations	from any computer on the Internet

9. Material and technical support for mastering an academic discipline

9.1. List of premises for classroom activities for the discipline

1. Lecture classes are held in:
   - conference hall equipped with presentation equipment (projector, laptop, screen)
2. Clinical and practical classes are held in:
   - 6 training rooms equipped with computer equipment;
   - Observation room of the reception room;
   - wards and dressing departments of traumatology and orthopedic departments;
   - plaster room and consultation rooms of the polyclinic of the Institute of Traumatology and Orthopedics of the University Clinic;
   - multidisciplinary accreditation and simulation center.

9.2. List of equipment for classroom activities for the discipline

1. multimedia complex (laptop, projector, screen);
2. multimedia visual materials on various sections of the discipline;
3. sets of training videos;
4. computer equipment;
5. Negatoscopes;
6. sets of thematic radiographs;
7. Drawing boards;
8. stands with metal structures for osteosynthesis, endoprostheses, wounding shells, orthopedic instruments, plaster bandages;
9. Sets of transport tires, bandages, hemostatic tourniquets;
10. dummies of skeletal segments;
11. centimeter tapes, protractors.

9.3. A set of licensed and freely distributed software, including domestic production

Item no.	**Software**	**number of licenses**	**Type of software**	**Manufacturer**	**Number in the unified register of Russian software**	**Contract No. and date**
1	Wtware	100	Thin Client Operating System	Kovalev Andrey Alexandrovich	1960	2471/05-18 from 28.05.2018
2	MyOffice is Standard. A corporate user license for educational	220	Office Application	LLC "NEW CLOUD TECHNOLOGIES"	283	without limitation, with the right to receive updates for 1

	organizations, with no expiration date, with the right to receive updates for 1 year.					year.
3	LibreOffice		Office Application	The Document Foundation	Freely distributed software	
4	Windows 10 Education	700	Operating systems	Microsoft	Azure Dev Tools for Teaching Subscription	
5	Yandex. Browser		Browser	«Yandex»	3722	
6	Subscription to MS Office Pro for 170 PCs for FGBOU VO "PIMU" of the Ministry of Health of Russia	170	Office Application	Microsoft		23618/HN10030 LLC "Softline Trade" from 04.12.2020

10. List of changes to the working program (to be filled out by the template)

№	Date of changes	No minutes of the meeting of the department, date	Contents	Signature

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation
(FSBEI HE "PRMU" of the Ministry of Health of Russi**a**

Department of

TRAUMATOLOGY, ORTHOPEDICS AND NEUROSURGERY named after M.V. Kolokoltsev

CHANGE REGISTRATION SHEET

working program for the academic discipline
«TRAUMATOLOGY and ORTHOPEDICS»

Field of study / specialty / scientific specialty: 31.05.01 "GENERAL MEDICINE"

Training profile: Traumatology, orthopedics and neurosurgery

Mode of study: Full-time

Position	Number and name of the program section	Contents of the changes made	Effective date of the changes	Contributor's signature

Approved at the department meeting
(protocol No. 7, dated 25.05.2021)

Head of the Department
TRAUMATOLOGY, ORTHOPEDICS AND NEUROSURGERY named after M.V. Kolokoltsev

_____ _____/_____
signature print name