

№ СТOM-21 ИИ

Federal State Budgetary Educational Institution of Higher Education  
«North-Ossetia State Medical Academy»  
of the Ministry of Healthcare of the Russian Federation

APPROVED



Rector of FSBEI HE NOSMA  
MOH Russia

O.V. Remizov

« 24 » may 2023 year

**EDUCATIONAL TRAINING PROGRAM OF THE DISCIPLINE**  
**«PHYSICAL CULTURE AND SPORT»**

the main professional educational program of higher education - specialty program  
in the specialty 31.05.03 Dentistry (partially implemented in English),  
approved in may «24», 2023

Form of education \_\_\_\_\_ Full-time \_\_\_\_\_

The period of development \_\_\_\_\_ 5 \_\_\_\_\_

Department of \_\_\_\_\_ general hygiene and physical culture \_\_\_\_\_

Vladikavkaz, 2023

When developing an educational training program, the discipline is based on:

1. Federal State Educational Standard of Higher Education on specialty 31.05.03 Dentistry (partially implemented in English), approved by the Ministry of Education and Science of the Russian Federation on August 12, 2020 № 984.
2. Academic plan on specialty 31.05.03 Dentistry (partially implemented in English):  
CTOM–21-01-21 ИИ;  
CTOM–21-02-22 ИИ;  
approved by the Scientific council of the Federal state budgetary educational institution of higher education «North-Ossetia state medical academy» of the Ministry of healthcare of the Russian Federation from «24» May 2023, protocol № 8.

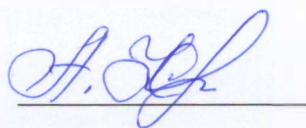
The educational training program of the discipline was approved at a meeting of the department of general hygiene and physical education from «18» March 2023, protocol №10.

The educational training program of the discipline was approved at a meeting of the central coordinating training and methodological council from «23» May 2023, protocol № 5.

The educational training program of the discipline was approved by the Scientific council of the state medical university of the Federal state budgetary educational institution of higher education «North-Ossetia state medical academy» of the Ministry of healthcare of the Russian Federation from «24» May 2023, protocol № 8.

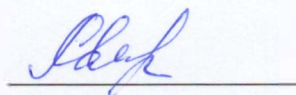
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## **Content of the work program**

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1. name of the discipline;
2. list of planned results of training in the discipline, correlated with the planned results of the development of the educational program;
3. specifying the place of the discipline in the structure of the educational program;
4. the volume of the discipline in credit units indicating the number of academic or astronomical hours allocated for contact work of students with the teacher (by type of training) and for independent work of students;
5. the content of the discipline, structured by topic (sections) with an indication of the number of academic or astronomical hours allocated to them and the types of training sessions;
6. list of educational and methodological support for independent work of students in the discipline;
7. fund of evaluation funds for conducting intermediate certification of students in the discipline;
8. list of basic and additional educational literature necessary for the development of the discipline;
9. list of resources of the information and telecommunications network " Internet "(hereinafter - the "Internet"), necessary for the development of the discipline;
10. guidelines for students on the development of the discipline;
11. list of information technologies used in the implementation of the educational process in the discipline, including a list of software and information reference systems (if necessary);
12. description of the material and technical base necessary for the implementation of the educational process in the discipline.
13. conducting educational activities using e-learning and distance learning technologies.

## 2. The list of planned learning outcomes in the discipline and the results of mastering the educational program

№№ p/p	Number / index of compe- tence	Content of competence (or part of it)	Topic of the lesson (section)	Achievement indicators competencies	The learning outcomes of the		
					know	be able to	master
1	2	3	4	5	6	7	8
1.	UC-7	Able to maintain the proper level of physical fitness to ensure full-fledged social and professional activity	<i>Scientific and methodological foundations of the formation of physical personality culture</i>	<b>IC-1</b> Own physical training methods <b>IC-2</b> Own social recovery algorithm and professional activity using methods of physical education	<ul style="list-style-type: none"> <li>✓ The human body and its functional systems, self-regulation and improvement of the body, adaptation, socio-ecological factors, indicators of the state of the main functional systems;</li> <li>✓ general and special physical training, physical qualities, motor skills, sports training, intensity of physical activity;</li> <li>✓ forms of organizing classes, methods and means of training, physical and functional readiness, basics of planning the educational and training process;</li> <li>✓ forms, focus, planning of independent studies;</li> <li>✓ methodology for compiling sets of physical exercises, taking into account their impact on functional and motor capabilities, adaptive resources of the body and strengthening human health;</li> <li>✓ psychophysiological characteristics of mental work, performance, fatigue and overwork, fatigue, recreation, relaxation;</li> <li>✓ diagnosis of health status and its assessment, medical supervision, self-control;</li> <li>✓ professional-applied physical training, its forms, conditions and nature of work, applied skills, applied sports, industrial physical training, occupational diseases and their prevention;</li> <li>✓ influence of health systems on health promotion, prevention of occupational diseases and bad habits.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Apply theoretical knowledge when organizing independent and educational training sessions;</li> <li>✓ use methods and means of professional applied physical training;</li> <li>✓ use a set of exercises for general physical training, special physical training, recreational and adaptive (therapeutic) physical culture;</li> <li>✓ plan training sessions;</li> <li>✓ control the level and intensity of the load during independent physical education;</li> <li>✓ select training means and methods;</li> <li>✓ use in classes methods of training the basic physical qualities of a person;</li> <li>✓ apply a technique for improving endurance based on heart rate;</li> <li>✓ select the necessary physical exercises to adapt the body to various working conditions and specific environmental influences, restore performance after mental and physical fatigue;</li> <li>✓ apply methods for regulating the psycho-emotional state;</li> <li>✓ apply in practice exercises in professional-applied physical training, general physical training, special physical training and special games in educational sessions and training;</li> <li>✓ choose ways to introduce new methods and techniques aimed at strengthening and restoring social and professional activity.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Mechanisms for the formation of motor skills;</li> <li>✓ methods of self-monitoring of physical fitness;</li> <li>✓ methods of physical education and self-education to increase the body's adaptive reserves and improve health;</li> <li>✓ skill in compiling sets of physical exercises, taking into account their impact on functional and motor capabilities, adaptive resources of the body and strengthening human health;</li> <li>✓ skill of self-assessment of performance, fatigue, fatigue and the use of physical education means for correction in the mode of educational and production activities;</li> <li>✓ modern technologies for managing and restoring social and professional activity using physical education methods.</li> </ul>

### 3. Place of discipline in the structure of the educational program

The discipline "Physical culture and sports" refers to the disciplines of the mandatory part of Block 1 "Disciplines (modules)" of the Federal State Educational Standard of Higher Education in the specialty 31.05.03 Dentistry (partially implemented in English).

### 4. Discipline volume

№.№ п/п	Kind of work		In total test units	In total clocks	Semester	
					I	VIII
					Hours	
1	2		3	4	5	6
1.	<b>Contact work of students with teacher (total), including:</b>		<b>2 ZET</b>	<b>48</b>	<b>12</b>	<b>36</b>
2.	Lectures (L)			<b>20</b>	–	20
3.	Practical classes (PC)			<b>28</b>	12	16
4.	Independent work of a student (IWS)			<b>24</b>	24	–
5.	<b>Type of intermediate certifications</b>	To pass a test (S)			<b>3</b>	<b>3</b>
		examination (Э)			–	–
6.	<b>TOTAL: general labor intensity</b>	clocks	ZET	<b>72</b>	<b>36</b>	<b>36</b>
		ZET	<b>2 ZET</b>		<b>1</b>	<b>1</b>

## 5. Content of the discipline

№/II	№ semester	Name of the subject (section) of the discipline	Educational types activity (in hours)				Forms of current control progress
			L	PC	IWS	IN TOTAL	
1	2	3	4	5	6	7	8
1.	I, VIII	<b>THEORETICAL SECTION</b>					
	I	<i>Physical culture in public and professional training of students.</i>			2	2	<ul style="list-style-type: none"> <li>• Presence control;</li> <li>• express survey on terms;</li> <li>• report (presentation)</li> </ul>
	I	<i>Psychophysiological bases of labor and intellectual activity. Means of physical culture in the regulation of performance. Fundamentals of the methodology for the development of basic physical qualities.</i>			4	4	
	I	<i>Natural science foundations of physical education.</i>			2	2	
	I	<i>Medico-biological and methodological bases of modern sports training.</i>			2	2	
	I	<i>Methods for monitoring the functional and physical state of the human body.</i>			2	2	
	I	<i>First and pre-medical care for sports injuries, sudden illnesses and other adverse factors.</i>			2	2	
	I	<i>Hygienic basics of physical education and sports. Part 1: Technical equipment and simulators in the service of health. Part 2: hygiene AIDS for improving and restoring health.</i>			2	2	
					2	2	
	VIII	<i>Doping and stimulants in sports.</i>	2			2	
	VIII	<i>Medical, biological and social risk factors in modern society.</i>	2			2	
	VIII	<i>Adaptive physical culture and sports for the disabled.</i>	2			2	
	VIII	<i>Professional and applied physical training (PPFP). Physical Culture in the system of scientific labor organization (NOT).</i>	2			2	
	VIII	<i>General physical and sports training in the system of physical education of medical students.</i>	4			4	
	VIII	<i>Physical education of students with disabilities.</i>	2			2	
	VIII	<i>Optimization of the physical activities populations.</i>	2			2	
	VIII	<i>Modern health and sports systems to improve the quality of human life.</i>	4			4	
2.	I, VIII	<b>PRACTICAL SECTION</b>					
		<b>Metodiko-praktichesky subsection*</b>					
	VIII	<b>Non-traditional methods of physical education:</b> <i>Autogenic training (bed, sed)**.</i>					<ul style="list-style-type: none"> <li>• Paper</li> </ul>
	I	<b>Control and self-checking:</b> <i>Operational control in physical classes (bed, sed).</i>					
	I	<i>Determination of students physical performance during physical exercises (bed, sed).</i>					
	I	<i>Physical condition assessment (bed).</i>					
	I	<i>Assessment of the functional state of students special educational Department (sed).</i>					
	VIII	<i>Optimal motive mode and rational nutrition for people of different ages (bed, sed).</i>					
	I	<b>Professional and applied physical training:</b> <i>Methods of conducting and compiling a complex of morning hygienic gymnastics (bed, sed).</i>					
	VIII	<i>Preparation of a program of professional and applied physical culture of a doctor (bed, sed).</i>					

1	2	3	4	5	6	7	8
	I, VIII	<b>Educational and training subsection</b>					
	I	<b>General physical fitness with elements of athletics</b> <b>General physical preparation</b> <i>Topic1. Development of general physical qualities: coordination, speed, agility, endurance, flexibility and strength.</i>			4	4	<ul style="list-style-type: none"> <li>• Presence control;</li> <li>• monitoring the implementation of practical tasks (drawing up sets of exercises of various directions):</li> <li>• control of exercise technique;</li> <li>• control standards for assessing students' acquisition of knowledge, skills and practical experience on the topic in the classroom</li> </ul>
	I	<i>Topic2. A set of exercises:</i> <ul style="list-style-type: none"> <li>• for the development of the muscles of the shoulder belts;</li> <li>• for the development of the muscles of the back and abdomen;</li> <li>• for the development of the muscles of the lower extremities.</li> </ul>			2	2	
	I	<b>Athletics</b> <i>Topic3. Training in low start and long jump techniques.</i>		2		2	
	I	<i>Topic4. Development of speed-strength qualities.</i>		2		2	
	I	<i>Topic5. Training in short-distance running techniques.</i>		2		2	
	I	<i>Topic6. Medium running technique training distances.</i>		2		2	
	I	<i>Topic7. Long running training distances.</i>		2		2	
	VIII	<b>General physical fitness with elements of athletics</b> <b>General physical preparation</b> <i>Topic1. Development of general physical qualities: coordination, speed, agility, endurance, flexibility and strength.</i>		4		4	
	VIII	<i>Topic2. A set of exercises:</i> <ul style="list-style-type: none"> <li>• for the development of the muscles of the shoulder belts;</li> <li>• for the development of the muscles of the back and abdomen;</li> <li>• for the development of the muscles of the lower extremities.</li> </ul>		2		2	
	VIII	<b>Athletics</b> <i>Topic3. Improving the technique of low start and long jump.</i>		2		2	
	VIII	<i>Topic4. Improving the running technique on short distances.</i>		2		2	
	VIII	<i>Topic5. Improving running techniques on middle distances.</i>		2		2	
	VIII	<i>Topic6. Improving the technique of long-distance running.</i>		2		2	
3.	I, VIII	<b>CHECK SECTION</b> <i>Topic1. Diagnostics of the individual physical development and level physical fitness learner</i>		4		4	
		<b>ИТОГО:</b>	<b>20</b>	<b>28</b>	<b>24</b>	<b>72</b>	

\***Note:** Methodological and practical exercises are held within the framework of practical exercises on to the educational schedule.

\*\***Note:** BED – basic education department; SED – special education department

**6. The list of educational and methodological support for independent work of students in the discipline**

<b>№/п</b>	<b>№ semesters</b>	<b>Name of the educational and methodological development</b>
1.	I, VIII	Rostiashvili E.Yu., Andiev O.Kh., Asitashvili S.G. "Theoretical course for practical classes in the discipline "Physical Education for Students", educational and methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2016.
2.	I, VIII	Rostiashvili E.Yu., Asitashvili S.G. "Determination of physical performance of students", methodological recommendations for students. North Ossetian State Medical Academy: Vladikavkaz, 2016.
3.	I, VIII	Kusova A.R., Razuvaeva A.A. "Physical Condition Assessment" guidelines. North Ossetian State Medical Academy: Vladikavkaz, 2016.
4.	I, VIII	Kusova A.A., Razuvaeva A.A. "Methodology for conducting and compiling a complex of morning hygienic gymnastics", methodological recommendations. North Ossetian State Medical Academy: Vladikavkaz, 2016.
5.	I, VIII	Kusova A.R., Razuvaeva A.A. "Autogenic training", educational and methodological manual for students. North Ossetian State Medical Academy: Vladikavkaz, 2016.
6.	I, VIII	Kusova A.R., Rostiashvili E.Yu. "Optimal motor mode and rational nutrition of people of different ages", educational and methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2016.
7.	I, VIII	Rostiashvili E.Yu., Andiev O.Kh. "Drawing up a program of professionally applied physical education for a doctor", methodological recommendations for students. North Ossetian State Medical Academy: Vladikavkaz, 2016.
8.	I, VIII	Kusova A.R., Rostiashvili E.Yu. "Methods for assessing and correcting posture", guidelines for students. North Ossetian State Medical Academy: Vladikavkaz, 2017.
9.	I, VIII	Revazov M.O., Kozaev R.Kh., Maganova N.G. "Organization of physical education classes for students of a special medical department with cardiovascular pathology" methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2018.
10.	I, VIII	Kusova A.R., Rostiashvili E.Yu. "Organization of physical education classes for overweight students", methodological recommendations. North Ossetian State Medical Academy: Vladikavkaz, 2018.
11.	I, VIII	Shatalova A.A., Andiev O.Kh., Asitashvili S.G., Revazov M.O. "The use of outdoor games in physical education classes at a university", methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2019.
12.	I, VIII	Gorokhov S.V., Kozaev R.Kh. "Outdoor games with elements of badminton in classes with students of a special medical group", methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2019.
13.	I, VIII	Kusova A.R., Rostiashvili E.Yu. "Organization of physical education classes for students with diseases of the musculoskeletal system (flat feet)", methodological recommendations. North Ossetian State Medical Academy: Vladikavkaz, 2019.
14.	I, VIII	Kusova A.R., Shatalova A.A., Gorokhov S.V., Kozaev R.Kh. "Modern auxiliary and non-traditional health-improving and physical education means and technologies", methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2020.
15.	I, VIII	Kusova A.R., Rostiashvili E.Yu. "Organization of physical education classes for students of a special medical department with a disease of the musculoskeletal system - scoliosis", methodological manual. North Ossetian State Medical Academy: Vladikavkaz, 2020.
16.	I, VIII	Andiev O.Kh., Asitashvili S.G. "Methodology of teaching and conducting general developmental exercises with objects", educational and methodological manual for students. North Ossetian State Medical Academy: Vladikavkaz, 2021.



17.	I, VIII	Rostiashvili E.Yu., Gorokhov S.V. "Health-improving gymnastics in the system of physical education", a methodological manual for students of a special medical department. North Ossetian State Medical Academy: Vladikavkaz, 2021.
18.	I, VIII	Kusova A.R., Tedeeva I.V. "Stretching for beginners. Methods of recovery aft physical activity". Methodological manual for students. North Ossetian State Medical Academy: Vladikavkaz, 2021.
19.	I, VIII	Rostiashvili E.Yu., Gorokhov S.V. "Self-control in the process of physical education", methodological recommendations for students of a special medical department. North Ossetian State Medical Academy: Vladikavkaz, 2022.
20.	I, VIII	Kusova A.R., Tedeeva I.V. "General endurance. Forms and methods of its upbringing", methodological recommendations for students. North Ossetian State Medical Academy: Vladikavkaz, 2022.
21.	I, VIII	Rostiashvili E.Yu., Gorokhov S.V. "Types of physical activity and their intensity", methodological recommendations for students of the special medical department. North Ossetian State Medical Academy: Vladikavkaz, 2023.
22.	I, VIII	Kusova A.R., Tedeeva I.V. "Nordic walking as a means of therapeutic physical training", methodological recommendations for students of a special medical department. North Ossetian State Medical Academy: Vladikavkaz, 2023.
23.	I, VIII	Rostiashvili E.Yu., Asitashvili S.G., Andiev O.Kh., Tedeeva I.V. "Athletics in the system of physical education. Techniques and teaching methods", a teaching aid for students. North Ossetian State Medical Academy: Vladikavkaz, 2023.
24.	I, VIII	Kusova A.R., Asitashvili S.G., Andiev O.Kh. "Development of physical qualities", educational and methodological manual for students. North Ossetian State Medical Academy: Vladikavkaz, 2023.

## 7. Fund of assessment tools for intermediate certification of students in the discipline

No.	List of competencies	Semester number	Assessment indicator(s)	Evaluation criterion(s)	Grading scale	Name of the valuation funds fund
1.	UC-7	I, VIII	See training quality control standard, approved. By order of the Federal State Budgetary Educational Institution of Higher Education of the SOGMA of the Ministry of Health of Russia dated July 10, 2018, No. 264 /0	See training quality control standard, approved. By order of the Federal State Budgetary Educational Institution of Higher Education of the SOGMA of the Ministry of Health of Russia dated July 10, 2018, No. 264 /0	See training quality control standard, approved. By order of the Federal State Budgetary Educational Institution of Higher Education of the SOGMA of the Ministry of Health of Russia dated July 10, 2018, No. 264 /0	<ul style="list-style-type: none"> <li>• Benchmark of test tasks;</li> <li>• tests of general physical and professionally applied physical training,</li> <li>• paper</li> </ul>

8. List of basic and additional educational literature necessary for mastering the discipline

№ п/п	Наименование	Автор (ы)	Год, место издания	Кол-во экз.		Наименование ЭБС/ссылка ЭБС
				в библ.	на каф.	
<b>Основная литература</b>						
1.	Физическая культура и спорт: учебное пособие	Ю.И. Евсеев	Ростов-на-Дону Феникс, 2014	200	5	
2.	Физическая культура и здоровье: учебник	В.В. Пономарева	М.: ГОУ ВУНМЦ МЗ РФ, 2001	41	3	
3.	Здоровый образ жизни и физическое совершенствование: учебное пособие	Г.С. Туманян	М.: Академия, 2006	20	2	
4.	Физическая культура и спорт: методология, теория, практика: учебное пособие	И.С. Барчуков, А.А. Нестеров	М.: Академия, 2006	5	2	
<b>Дополнительная литература</b>						
5.	Physical therapy: tutorial guide	V.A. Epifanov A.V. Epifanov	Moscow: GEOTAR-Media, 2022	-	1	«Консультант студента» <a href="https://www.studentlibrary.ru/book/ISBN9785970467954.html">https://www.studentlibrary.ru/book/ISBN9785970467954.html</a>
6.	Практикум по теории и методике физического воспитания и спорта: учебное пособие	Ж.К. Холодов, В.С. Кузнецов	М.: Академия, 2006	5	2	
7.	Основы научно-методической деятельности в физической культуре и спорте: учебное пособие	Ю.Д. Железняк	М.: Академия, 2005	5	2	
8.	Спортивные игры: техника, тактика, методика обучения: учебник	Ю.Д. Железняк	М.: Академия, 2006	4	2	
9.	Лечебная физическая культура: справочник	В.А. Епифанов	М.: Медицина, 2004	15	3	«Консультант студента» <a href="http://www.studmedlib.ru/ru/book/ISBN9785970426456.html">http://www.studmedlib.ru/ru/book/ISBN9785970426456.html</a>
			М.: ГЭОТАР-Медиа, 2006	151	4	

СОГЛАСОВАНО  
Зав. библиотекой

## 9. The list of resources of the information and telecommunication network "Internet" necessary for mastering the discipline

1. <https://minobrnauki.gov.ru/?utm> – Official website of the Ministry of Science and Higher Education of the Russian Federation.
2. <http://www.minsport.gov.ru/> – Official website of the Ministry of Sports of the Russian Federation, Tourism and Youth Policy of the Russian Federation.
3. <https://www.rosminzdrav.ru/> – Official website of the Ministry of Health of the Russian Federation.
4. <http://sportlaws.infosport.ru> – Sports law. A database containing normative and legislative acts regulating legal, organizational, economic and social relations in the field of physical culture and sports.
5. <http://lib.sportedu.ru> – Central branch library for physical culture and sports of the Russian Federation.
6. <http://www.edu.ru/> – Russian education. Federal portal.
7. e-library – Scientific electronic library.
8. Wikipedia – Free encyclopedia.
9. <http://www.tpfk.infosport.ru> – Theory and practice of physical culture. Monthly scientific and theoretical journal of the State Committee of the Russian Federation on Physical Culture, Sports and Tourism.
10. <http://www.infosport.ru/press/fkvot> – Physical culture: upbringing, education, training. Quarterly scientific and methodological journal of the Russian Academy of Education.
11. <http://edu.garant.ru/garant/study/> – Guarantor-student - Encyclopedia of Russian Legislation (program for supporting educational institutions). Special issue for undergraduates, graduate students, teachers.
12. <http://www.studentlibrary.ru/> – "Consultant Plus".
13. <http://www.teoriya.ru/ru> – Physical culture: upbringing, education, training. Quarterly scientific and methodological journal of the Russian Academy of Education.
14. <http://www.fizkult-ura.ru/> – FizkultUra website.
15. <http://www.badm.ru/> – National Badminton Federation of Russia.
16. <http://www.afkonline.ru/> – Adaptive physical education. Quarterly magazine.
17. <http://kzg.narod.ru/> – Journal "Culture of Healthy Life" (open access).
18. <http://gto.ru> – Internet portal of the All-Russian physical culture and sports complex "Ready for Labor and Defense".
19. <https://rosinwebc.ru/> – AS FSK GTO (Information and Scientific WEB-Center for Physical Culture, Health and Sports)

## 10. Methodical instructions for students on mastering the discipline

The process of studying the discipline includes: contact work (in lectures and practical classes), as well as independent work.

### Theoretical section

Lectures form the basis of theoretical training for students. During lectures, basic issues within each topic of the discipline are revealed. Key aspects of the topics are identified, and emphasis is placed on the most complex and important provisions of the material being studied. During the classes, basic concepts and terms are given, basic patterns, theories, principles, provisions that reveal the essence of phenomena in physical culture. Particular attention is paid not only to students' assimilation of the problems being studied, but also to stimulation of their active cognitive activity, creative thinking, development of a scientific worldview, professionally significant properties and qualities. Lecture classes are conducted using demonstration material in the form of a presentation.

## Practical section

For the purpose of a differentiated approach to the organization of the educational process in physical culture and on the basis of an annual medical examination, distribution is carried out among educational departments into:

- ✓ **main educational department - for students of the main medical group (health group 1)**, who have no deviations or have minor deviations in health, with good physical development and functional condition, a level of physical fitness appropriate for age and gender;
- ✓ **preparatory educational department** - formed from the number of students classified for health reasons *in the preparatory medical group (health group 2)*, with disharmonious physical development and (or) lagging behind peers in physical fitness, without deviations or with minor deviations in health;
- ✓ **special educational department** - is formed from the number of students assigned for health reasons *to special medical group "A" (health group 3)*, who have clear deviations in their health status of a permanent (chronic diseases, congenital malformations in the compensation stage) or temporary nature or physical development, which do not interfere with the performance of normal educational and educational work, however, requiring limitation of physical activity.

**Special group "B" (health group 4)** includes students who have significant deviations in the state of health of a permanent (chronic disease in the subcompensation stage) and temporary nature, but without pronounced health problems; students with disabilities and people with disabilities. A person with disabilities is a person who has physical and (or) mental disabilities that prevent the development of educational programs without the creation of special conditions. A disabled person is a person who has a health impairment with a persistent disorder of body functions, caused by diseases, consequences of injuries or defects, leading to limitation of life activity and necessitating his social protection.

- ✓ **sports training department** - a department of sports improvement, which includes students *of the main medical group* who have shown good general physical and sports preparedness and a desire to engage in depth in one of the sports, classes for which are organized at the academy.

The determination of medical groups for classes, taking into account the state of health, is carried out in order to assess the level of physical development and functional capabilities, select the optimal physical education program, and develop medical recommendations for planning physical education classes.

The practical section of the program is implemented through methodological, practical and educational training sessions in study groups.

Methodological and practical classes provide for the development of basic methods and methods of developing educational, professional and life skills through the means of physical culture and sports. When conducting methodological and practical exercises, it is recommended to adhere to the following approximate scheme:

- ✓ in accordance with the planned topic of the lesson, the teacher gives students in advance a task to familiarize themselves with the recommended literature and the necessary instructions for mastering it;
- ✓ the teacher briefly explains teaching methods, if necessary, shows appropriate techniques, ways of performing physical exercises, motor actions to achieve the necessary results according to the method being studied;
- ✓ students reproduce thematic assignments under the supervision of the teacher, practically with mutual control;
- ✓ under the guidance of the teacher, the results of the assignment are discussed and analyzed, students are given individual recommendations for practical self-improvement of thematic actions, techniques, methods.

Further consolidation and improvement of methodological techniques occurs in the process of their repeated reproduction in the changing conditions of educational classes, in extracurricular physical education and sports activities, in everyday life, and on vacation.



***Educational and training sessions in the main educational department***, where students of the basic and preparatory medical groups study, are based on the use of a variety of means of physical education, sports and professionally applied physical training. Their focus is related to ensuring the necessary physical activity by achieving and maintaining an optimal level of physical and functional fitness during the training period; acquiring personal experience in improving and correcting individual physical development, functional and motor capabilities; with the development of vital and professionally necessary skills and psychophysical qualities. PPPP tools, selected in accordance with the PPPP tasks of future specialists, include specially targeted dosed physical exercises, natural factors of nature and certain hygienic factors.

***For students of the sports department***, classes provide specific means and methods of training in a specific sport based on higher volumes of load intensity than in basic types.

***Practical educational material for students of the special educational department*** has an educational, corrective and health-prophylactic orientation. When implementing it, an individually differentiated approach is required depending on the level of functional and physical fitness, the nature and severity of structural and functional disorders in the body caused by temporary or permanent pathological factors (*Appendix No. 1*). Each lesson must implement the main tasks, which are an integral part of the special education department:

- ✓ development of aerobic endurance;
- ✓ prevention of possible disorders of the musculoskeletal system;
- ✓ prevention of visual refractive disorders;
- ✓ improvement of vestibular function.

### **Control section**

*Input control* includes testing (input control test tasks) and verification of practical skills developed in physical education and sports in general education institutions. The results of the input control are used by the teaching staff of the department to develop measures to improve and update methods of teaching the discipline.

*Current control* is determined in the form of monitoring class attendance; interviews; test control; theoretical and methodological assignment for writing and defending an abstract, preparing a report; receiving practical skills, including: drawing up and performing sets of exercises, an independent lesson plan; individual assignments aimed at improving the student's physical development and mastering competencies for drawing up a plan for physical education classes of various types; filling out a self-monitoring diary, reflecting the student's ability to observe the functional capabilities of the body during physical education classes and analyze the impact of physical exercise on the human body.

*Interim certification* completes the study of the discipline (test). The criterion for successfully mastering educational material in the main, preparatory and sports departments is the regularity of attendance at compulsory training sessions, knowledge of the theoretical section of the program, tests, as well as the requirements established for a given semester.

Certification of students in *a special medical department*, taking into account theoretical and practical knowledge, as well as taking into account the dynamics of physical fitness and class attendance. A positive assessment (credit) should also be given to a student who has not demonstrated significant changes in the formation of skills, abilities and the development of physical qualities, but regularly attended physical education classes, diligently completed the teacher's assignments, mastered the skills available to him for independent practice of health-improving, corrective gymnastics, necessary knowledge in the field of physical education and other sections of the program material.

The list of requirements and tests for each section are developed by the department and cover their general physical and professional-applied physical training, as well as the level of theoretical knowledge. To assess the assimilation of theoretical material, programmed testing using personal computers is used.

*Evaluation tools for conducting input, current control and intermediate certification in the discipline are presented by the fund of evaluation tools in the teaching and learning complex of the discipline.*

### ***Independent work***

Independent work is a type of learning activity of the student, which is carried out outside the classroom. The purpose of independent work is an in-depth assimilation of educational material, the development of abilities, creative activity, the manifestation of individual interest in the study of individual topics and issues of discipline. In the process of independent work, the student may have questions that need to be clarified using individual consultations of the teacher. Educational technologies for independent work include:

- ✓ development of recommended literature on the topics of the program; work with teaching materials on discipline;
- ✓ allows you to better understand the material of the future lesson, to understand problematic issues, to work actively in the classroom;
- ✓ carrying out by students of self-control of mastering the topics of discipline by solving tests, tasks and exercises, answers to control questions contained in the assessment and methodological materials on the discipline.

### ***Features of the organization of training in the discipline for people with disabilities and persons with limited health capabilities***

Mastering the discipline by disabled people and persons with limited health capabilities consists of performing written work on a topic from the list of mandatory topics in the theoretical section of the discipline's work program. The main emphasis in assessing the educational achievements in physical education of students with pronounced health deviations should be placed on their persistent motivation to engage in physical exercise and the dynamics of their physical capabilities.

Depending on the nature of the student's illness and the degree of disability (in accordance with the recommendations of the medical and social examination service), classes for students with disabilities can be organized in the following types:

- ✓ lectures on healthy lifestyle topics;
- ✓ active adaptive physical education activities in the gym or outdoors;
- ✓ classes in tabletop and intellectual sports;
- ✓ preparation of an abstract on a topic developed for each student, reflecting the health-improving and preventive orientation of physical education.

The following assessment tools are provided for students with disabilities:

<b><i>Categories of students</i></b>	<b><i>Types of assessment tools</i></b>	<b><i>Forms of monitoring and evaluation of learning outcomes</i></b>
Hearing impaired	Test	Predominantly written test
Visually impaired	Interview	Mainly oral examination (individual)
With limited motor functions	Solving remote tests, test questions	Organization of control using the MOODLE electronic shell, written verification

If necessary, for students with disabilities, the procedure for assessing learning outcomes can be carried out in several stages.

### ***Types and forms of making up missed classes***

A student who has missed practical classes must complete them according to a special schedule; theoretical classes must independently prepare for the sections of the program and be able to show the level of the material mastered in the form of: testing, preparing a report on the theoretical section of the program with a presentation (Appendix No. 3, 4); ability to create a set of warm-up exercises, morning hygienic exercises, etc., writing an essay (for students of a special medical group). Students, if they miss classes for a valid reason, may be exempt from taking certain tests. The additional lesson is conducted as a regular training session.

### ***Recommendations for students temporarily released from practical classes***

Students temporarily exempted from practical classes for health reasons complete the discipline program in a volume equivalent to the number of study hours in the form of: preparation of abstracts (Appendix No. 2), participation in judging competitions, etc. To receive intermediate certification, students must complete all tasks provided for in the discipline program.

In order to ensure the continuity of the educational process, for those who are objectively unable to regularly attend classes in the discipline due to health reasons, the necessary materials for sections of the program, as well as individually oriented ones, are provided in electronic form in the form of files with lectures, presentations and other teaching materials.

### **11. The list of information technologies used in the implementation of the educational process in the discipline**

Internet Explorer, Microsoft Office, Power Point

### **12. Description of the material and technical base necessary for the implementation of the educational process in the discipline**

<b>No.</b>	<b>Equipment identification</b>	<b>Amount</b>	<b>Technical condition</b>
<b><i>Educational and practical equipment</i></b>			
1.	Computer	3	Good
2.	Training apparatus	1	Excellent
3.	Copying equipment	1	Good
4.	Gymnastic mat	10	Good
5.	Shock-absorbing ring	2	Good
6.	Used plastic gaming shield	2	Good
7.	Volleyball stand	1	Good
8.	Step platform	15	Good
9.	Tennis table	3	Good
10.	Chess table	6	Good
11.	Height meter	1	Good
12.	Shop	5	Good
13.	Darts	2	Good
14.	Basketball	10	Good
15.	Volleyball	15	Good
16.	Soccer ball	8	Good
17.	Wrist dynamometer	4	Good
18.	Karemat	20	Good
19.	Sports mats	5	Good
20.	Fitness ball	10	Good
21.	Dumbbells	5	Good
22.	Ball pump	1	Good
23.	Steel gymnastic hoop	10	Good
24.	Gymnastic stick	10	Good
25.	Rackets for table tennis	20	Good
26.	Badminton racket	20	Good
27.	Stopwatch	1	Good
28.	Basketball net	7	Good

29.	Volleyball net	4	Good
30.	Table tennis net	3	Good
31.	Gymnastic jump rope	20	Good
32.	Chess	7	Good
33.	Chest expander	3	Good
34.	Manual dynamometer	1	Good
35.	Mechanical scales	1	Good
36.	Table tennis ball	100	Good
37.	Blackboard	1	Good
38.	Automatic tonometer	1	Good
39.	Mechanical tonometer	3	Good
<b><i>Sports halls (offices)</i></b>			
40.	Sports hall No.1	1	Good
41.	Sports hall No.2	1	Good
42.	Shooting range	1	Satisfactory
43.	Classroom for methodical, lecture classes	1	Good
44.	Teaching	1	Good
45.	Locker room for teachers Utility rooms for storing supplies and equipment	1	Good
46.	Locker room for teachers Utility rooms for storing supplies and equipment	1	Good
<b><i>Outdoor sports grounds</i></b>			
47.	Playing field for mini-football	1	Satisfactory
48.	Marking track for jumping	1	Good
49.	Mini-football goal	2	Satisfactory

### **13. Conducting educational activities using e-learning and distance learning technologies**

In the context of the introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection and other force majeure events that do not allow full-time training, it is possible to study this discipline or part of it using e-learning and distance educational technologies.

Teaching the discipline in the above situations will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various tasks. When conducting training sessions, monitoring progress, as well as intermediate certification of students, platforms of the electronic information and educational environment of the academy and / or other e-learning systems recommended for use in the academy, such as Moodle, Zoom, Webinar, etc., can be used.

Lectures can be presented in the form of audio, video, "live lectures", etc.

Conducting seminars and practical classes is possible on-line in both synchronous and asynchronous modes. Seminars can be held in the form of web conferences.



## ***Methodological recommendations for organizing practical classes for students of the special education department***

Students who have deviations in their health status of a temporary or permanent nature, which are not an obstacle to physical education, but require limitation of physical activity, are sent to *a special medical group (SMG)*.

**Indications for SMG:** diseases with a stable stage of the disease in the absence of exacerbation and the threat of exacerbation under the influence of stress, as well as signs of severe functional insufficiency of the diseased organ or system, with the preservation of only some clinical signs of the disease, good general health, absence of complaints, favorable reaction of the body to physical load achieved through physical exercise.

**General contraindications to physical education are:**

- ✓ body temperature 37.1°C and above;
- ✓ exacerbation of a chronic disease;
- ✓ vascular crisis (hypertensive, hypotonic);
- ✓ heart rhythm disturbance: sinus tachycardia (110 beats/min and above), bradycardia (less than 50 beats/min), arrhythmia (extrasystoles with a frequency of more than 1 per minute).

**Complete exemption from physical education** takes place only if there are contraindications, which are:

- ✓ all diseases in acute or subacute stages;
- ✓ severe organic diseases of the nervous system and mental illnesses;
- ✓ malignant neoplasms;
- ✓ diseases of the cardiovascular system: aneurysms of blood vessels, circulatory failure of the second and third degrees of any etiology, some heart rhythm disturbances (atrial fibrillation, complete atrioventricular block);
- ✓ diseases of the respiratory system: bronchial asthma, severe forms of bronchiectasis;
- ✓ exacerbation of chronic diseases;
- ✓ liver diseases accompanied by liver failure;
- ✓ chronic renal failure;
- ✓ diseases of the endocrine system with severe dysfunction of the endocrine glands;
- ✓ diseases of the musculoskeletal system with pronounced dysfunction of the joints and the presence of pain;
- ✓ bleeding of any etiology.

**Organization and methodology of physical education classes in a special medical group has a number of features:**

- ✓ gradual increase in physical activity to ensure a training effect (introductory part 5 minutes, preparatory part 25-35 minutes, main part 30-4 minutes, final part 15-20 minutes);
- ✓ various qualitative and quantitative characteristics of exercises, individually differentiated selection and dosage of exercises depends on the indications and contraindications of existing diseases, the level of functional and physical fitness;
- ✓ systematic self-monitoring of the body's reaction to the load based on heart rate (twice a semester based on heart rate and blood pressure) during physical education classes;
- ✓ correction of the curriculum taking into account students' adaptation to the workload, weather, natural and material and technical conditions.

The main types of physical education for students of the special education department are: cyclic aerobic exercise for training the cardiorespiratory system mainly in the open air (metered walking, exercise on an exercise bike); strength exercises that train the muscular system; flexibility exercises for training the musculoskeletal system, preventing osteochondrosis. Individual corrective sets of exercises are required for each student; relaxation exercises that relieve emotional and mental stress; breathing exercises, which lead to a faster increase in the functional capabilities of the body and allow you to do a much larger volume of physical activity with less energy.

During exercises, it is necessary to monitor your heart rate to promptly correct the load. The maximum heart rate in the adaptation period and for untrained students should not exceed 60% of the heart reserve (HR). With an increase in the functional state of the cardiovascular system, the maximum heart rate during exercise can reach 80% of the heart rate. Transfer from groups of the special education department to groups of the preparatory and main departments is possible on the basis of a medical report at the beginning or end of the semester. Transfer of students from the main and preparatory departments to a special medical group is carried out at any time of the academic year upon the conclusion of a doctor. Students of special medical groups are required to undergo a medical examination and provide relevant documents on their health status to the teacher.

## ***Indications and contraindications for the use of physical exercises in a special medical group***

### **Diseases of the cardiovascular system.**

**Physical exercises are shown.** Breathing dynamic and static exercises. A set of general strengthening exercises performed in a sitting or lying position with your head raised. General developmental exercises. Active exercises for small and medium muscle groups; passive and active at a moderate pace for large muscles. Active exercises for all muscles from lightweight starting positions (lying, reclining, sitting). Self-massage. Dosed walking (at an average and fast pace), health path. Skiing, swimming. Hardening the body. Games of low and medium intensity.

**Contraindications.** Moderate intensity running (depending on tolerance). Long distance running. Physical overexertion (provokes an exacerbation of the disease). Exercise at an above average pace. Depending on the condition and load tolerance, exercises with dumbbells and holding your breath may be excluded. In the postoperative period after surgery for heart defects, carefully use: movements in bending the body, squats, low bends and jumps.

**For hypertension. Shown.** General developmental “hypotensive exercises”, which are characterized by springiness and softness of movements, a rhythm favorable for breathing. Exercises for balance, coordination, and relaxation. Dynamic strength exercises with dumbbells of medium intensity, strength exercises in isometric mode. Moderate cyclic exercises, walking at an average pace, exercises on a bicycle ergometer. Skiing. Swimming. Games of low and medium intensity.

**Contraindications.** Speed-strength exercises, sharp turns, bending head down, straining, jumping and jumping, exercises with holding the breath, exercises using the gravitational factor (stand on the shoulder blades, etc.) are excluded.

**Symptoms of autonomic dysfunction syndrome (ADS)** can be constant or occur in attacks. Manifestations of autonomic dysfunction are very diverse. Most often this is characterized by fatigue, weakness, increased irritability, headache, a tendency to faint, pressure surges, feelings of lack of air, poor adaptation to heat or stuffy rooms, increased sweating, decreased sexual activity, sleep disturbances and other disorders.

**Shown.** General strengthening exercises alternating with breathing exercises. Exercises to increase the mobility of the diaphragm, increase the strength of the respiratory muscles, etc. in the starting position of lying, sitting and standing. Alternating exercises for the muscles of the torso, abdominals, upper and lower extremities. Walking, exercises on a bicycle ergometer. Self-massage. Autogenic training and relaxation.

- **In the hypotensive form of SVD**, it is necessary to include exercises: strength, speed-strength, exercises with static tension, coordination and balance.
- **In the hypertensive form of SVD**, it is recommended to include walking and other cyclic exercises.
- **For cardiac, respiratory, gastrointestinal and other SVD syndromes**, select exercises depending on the existing complaints. Strictly differentiate the load depending on the state of health and the form of SVD.

**Contraindications.** Sudden movements. Fast pace. Emotional stress. The selection of exercises is carried out strictly depending on the form of SVD.

**With rheumatic carditis and mitral valve insufficiency**, students can more easily tolerate moderate-power speed-strength exercises with sufficient rest for recovery, but do not cope well with endurance exercises. In order to develop endurance and strengthen the heart muscle, along with speed-strength exercises, it is recommended to first use fast walking and slow running (walking 2-4 km). After 1.5-2 months, you can increase the time of continuous running to 5-8 minutes. It is important that your heart rate during slow running does not exceed 130-140 beats/min. and 5-7 minutes after the end of the load it was restored. To develop general endurance, it is necessary to devote at least 50% of the time of the main part of the lesson to cyclic exercises. This has a positive effect on improving the functional state of the heart muscle. To normalize blood pressure and central nervous system tone, physical activity of a predominantly cyclic nature is advisable (long brisk walking, slow running, cycling, as well as low-intensity exercises, breathing exercises). Of the running loads, running at a slow pace for 3 to 10-15 minutes is preferable.

**Respiratory diseases.** In chronic bronchitis, pneumonia, bronchial asthma, large and small bronchi undergo pathological changes (swelling, hardening, hardening), the elasticity of the alveoli and, in general, the lung decreases. This leads to a decrease in the rate of diffusion of oxygen and carbon dioxide, and also prevents their movement through the vessels.

**In chronic inflammatory diseases of the lungs and bronchi**, the blood flowing from the lungs is not sufficiently saturated with oxygen. This lack of oxygen is especially acute during muscle activity. Students with this pathology can more easily tolerate short-term speed-strength loads with sufficient rest periods than cyclic endurance exercises.

**The focus of physical exercises for these pathologies is:** compensation for impaired ventilation of the lungs; strengthening the respiratory muscles, helping to increase the elasticity of lung tissue, cultivating full, deep breathing with an emphasis on exhalation.

**Asthmatic bronchitis and bronchial asthma** are diseases in which attacks of suffocation occur as a result of spasm of the muscles of the middle and small bronchi.

**The main goal of physical education** is to develop full, deep breathing, with an emphasis on exhalation, raising the ribs and lowering the diaphragm. It is extremely important to conduct classes in a clean, dust-free, ventilated room. In the first exercise therapy sessions, endurance, speed and strength exercises are limited to reduce shortness of breath. You should adhere to the principle of “dissipating” the load with the gradual inclusion of all muscle groups in the work, with sufficient rest periods. Elements of walking and breathing exercises are included.

**Shown.** General developmental exercises from all starting positions in combination with breathing (mainly for the muscles of the upper limbs and chest). Static breathing exercises with pronunciation of consonants. Dynamic breathing exercises from various starting positions: lying, sitting, standing. Breathing exercises with extended and stepped-extended exhalation; with the exhalation of a series of trembling, hissing and whistling sounds, causing trembling of the glottis and bronchial tree (to reduce the tone of smooth muscles); with slowing down and holding the breath as you exhale. Breathing exercises with an emphasis on diaphragmatic breathing and resistance. Drainage exercises. Breathing exercises according to the method of Buteyko, Strelnikova and others. Elements of vibration, shaking. Relaxation exercises. Health path and other cyclic loads. Walk with acceleration, bending the torso forward, while relaxing the torso, upper shoulder girdle and upper limbs. Swimming.

**Contraindications.** Exercises with complex coordination of movements at a fast pace, straining. Cautiously forced breathing. Sometimes hyperventilation exercises are not advisable.

**Thyrotoxicosis** (thyroid disease) with a heart rate of 100 beats/min at rest is a mild form. Students, even with a mild form, do not tolerate physical activity well and get tired quickly. Heart rate often increases to 200 beats/min. even under light loads. Thyrotoxicosis is usually accompanied by the occurrence of pathological changes in the heart. Therefore, it is necessary to apply the same loads and approach to students of this pathology as for heart diseases.

**Shown.** General developmental exercises. Auto-training and relaxation exercises. Flexibility exercises. Breathing exercises. Cyclic exercises at a moderate pace outdoors.

**Contraindications.** Emotional stress. Fast paced exercises.

**Exogenous obesity** is a consequence of excessive nutrition and restriction of movement. With this form of obesity, endurance exercises and loads, sports games like basketball and football are indicated, which contribute to the consumption of large amounts of carbohydrates and the removal of fat from the depot. Speed-strength exercises are much more difficult to perform, and they do not cause a sufficient increase in energy expenditure. It is advisable to use the method of circuit training using simulators.

**Contraindication:** large force loads on the back and abdominal muscles, which leads to injuries and strain on the spine. Difficult coordination exercises. Exercises of the Hatha Yoga and Pilates systems, where there is a load on the wrist joints.

**Endogenous obesity** is caused by dysfunction of the endocrine glands.

**Diabetes mellitus** is a disease expressed in insufficient production of insulin due to dysfunction of the pancreas. Physical exercise has a stimulating effect on metabolism in patients with diabetes, promotes the utilization of sugar in the body, and its deposition in the muscles.

**In mild forms of diabetes**, under the influence of regular dosed exercise, the blood sugar level often drops to normal, which allows patients to reduce the dose of insulin and even stop using it with an appropriate diet. The movements are performed with a large amplitude, at a slow and medium pace, and for small muscle groups - at a fast pace.

Gradually, more complex exercises in terms of coordination are introduced, exercises with objects, on equipment (gymnastic wall, bench) and with weights. The duration of the lesson is 30-45 minutes, the density is quite high. In addition to therapeutic exercises, it is necessary to use dosed walking, gradually increasing the distance from 5 to 10 km, sports exercises (skiing, skating, swimming, rowing, running), games (volleyball, badminton, tennis) with strict medical and pedagogical supervision in process of classes. In case of moderate diabetes, physical therapy exercises and regulation of the motor regimen help stabilize the dosage of medications. Exercises of moderate and low intensity are used for all muscle groups. When dosing the load, it is necessary to take into account that physical exercise performed for a

long time at a slow pace reduces blood sugar, since in diabetes mellitus not only muscle glycogen is consumed, but also blood sugar.

**Absolute contraindications for physical training in case of diabetes mellitus:** severe diabetes mellitus, its decompensation; micro- and macroangiopathies with significant trophic disorders; proliferative retinopathy; hypertension of II and III degrees; active myocarditis; coronary heart disease of III and IV functional classes; Heart rate at rest is more than 100-110 beats/min; aneurysms of the heart and blood vessels; poorly controlled cardiac arrhythmias; renal failure; exacerbation of somatic diseases accompanying diabetes; acute and chronic infectious diseases; thrombophlebitis; poorly controlled pathological reaction to exercise, mainly in the form of sharp fluctuations in glycemic levels during physical training (up to 5-6 mol/l from the initial value).

**For chronic diseases of the gastrointestinal tract,** along with treatment and diet, a specialized motor regimen is also necessary. When using general strengthening exercises in the first lessons, it is advisable to limit sudden movements (fast running, jumping, jumping).

**Shown.** For chronic gastritis and gastroduodenitis, a rational diet is recommended. Breathing exercises. General strengthening and isometric exercises. Exercises for the abdominal muscles, increasing blood supply to the internal organs. Special exercises for the muscles of the lumbar region, back, and pelvis. Special physical exercises for muscle groups that are innervated by the same segments of the spinal cord as the organ. Autotraining. Relaxation.

**For chronic gastritis:**

- **with reduced secretory function.** It is recommended to exercise 2 hours before meals or 1½ - 2 hours after meals. General developmental static and dynamic exercises, mainly in the supine and lateral position, reclining, sitting. Exercises while standing and walking. Breathing exercises. Carefully include exercises that increase intra-abdominal pressure and in a prone position. Self-massage of the anterior abdominal wall (including stroking, rubbing and kneading techniques).
- **with preserved or increased secretory function.** After class, eating is required. General developmental exercises for large and medium muscle groups with a large number of repetitions and constant change of exercises, swing movements. Exercises for the abdominal muscles. Diaphragmatic breathing. Elements of autogenic training combined with complete relaxation. Hardening exercises, contrast shower.

**Contraindications.** In case of pain, abdominal exercises are excluded.

**Peptic ulcer** disease is characterized by an inflammatory process of the mucous membranes of the stomach or duodenum, followed by a violation of their integrity and the formation of ulcers. During periods of exacerbation of these diseases, students are excused from classes.

**For gastric ulcers, the following are indicated:** general developmental exercises (smooth, without jerking) from various starting positions (mainly knee-wrist position, lying on the back, sitting, standing). Exercises for the abdominal muscles combined with breathing gymnastics and subsequent relaxation. Walking at a slow to moderate pace, hiking, swimming, skiing. Elements of autogenic training combined with complete relaxation.

**Contraindications.** In case of pain, abdominal exercises and straight leg abductions leading to an increase in intra-abdominal pressure are excluded; with arms raised above shoulder level, jerks; full extension of the body, turns and bends to the sides. Fast paced exercise.

**For dyskinesia of the gallbladder and biliary tract, chronic cholecystitis, the following are recommended:** general developmental exercises, static and dynamic breathing exercises, relaxation exercises. Drainage exercises on the left side and in the knee-wrist starting position (in some cases - lying on the back, on the right side, sitting and standing) for the abdominal muscles in combination with breathing (mainly diaphragmatic) with

increased intra-abdominal pressure. It is advisable to combine the exercises with stroking and vibration massage techniques of the anterior abdominal wall for hypertensive forms of dyskinesia and all massage techniques for hypotonic ones. Walking. Elements of sports games of medium and low mobility.

**Contraindications.** When there is pain, exercises are not performed. Straining and sudden fluctuations in intra-abdominal pressure are avoided. In the hyperkinetic form, carefully perform abdominal exercises, with dumbbells, medicine balls, straining and holding your breath.

**With gastroptosis** (prolapse of the stomach), the main mechanism of gastric prolapse is weakening of the ligamentous apparatus, weakening of the abdominal press, therefore exercises are recommended in a lying position on the stomach or back.

**For all diseases of the liver, gallbladder and biliary tract,** physical exercise must be combined with deep diaphragmatic breathing. It is necessary to pay special attention to exercises that strengthen the abdominal muscles.



**Among gynecological diseases** in girls, one of the first places is occupied by inflammation of the uterine appendages (ovaries and fallopian tubes) - **adnexitis**, which develops most often with a decrease in the body's protective reactivity, which is observed with overwork, poor nutrition, cooling, neuropsychic overload, etc. One of the factors contributing to the development of the disease is artificial termination of pregnancy - abortion.

**For chronic pyelonephritis** outside the acute stage, loads of moderate intensity and different directions are recommended. Preference is given to cyclic exercises that lower blood pressure.

**Shown.** General developmental exercises for all muscle groups from various starting positions in combination with breathing and relaxation. It is preferable to use exercises for the abdominal muscles, back, pelvis, muscles of the gluteal region and lumbar-iliac muscles, pelvic floor, adductor muscles of the thighs, diaphragm in a lying, reclining position.

**For nephroptosis**, perform exercises from the starting positions with the pelvis elevated. Cyclic exercises: walking, skiing, cycling.

**Contraindications.** Straining and a sharp increase in intra-abdominal pressure are excluded. Avoid high-intensity exercise.

**For nephroptosis** – jumping, running, lifting weights, hanging on a bar, lifting the body from a supine position. Swimming (cooling the body).

**With functional diseases of the nervous system:** neuroses, which usually arise from overwork, chronic lack of sleep, infectious diseases, brain injuries, a general weakening (asthenia) of the whole organism occurs - asthenic syndrome. In the treatment and restoration of neuroses, physical exercise increases the tone of the central nervous system, normalizes excitatory and inhibitory processes, the function of the autonomic nervous system, and normalizes sleep.

Physical exercises of any sports orientation and moderate intensity that do not require significant nervous tension are indicated: general developmental exercises, dumbbell gymnastics, exercises on simulators. Auto-training and relaxation exercises. Flexibility exercises. Breathing exercises. Gymnastics of cerebral vessels. Cyclic loads of low and medium intensity, long walking at a slow and medium pace in the open air. Cycling, skiing. Swimming. Games of checkers and chess. Hardening the body. Self-massage. Recommend a rational daily routine (sufficient sleep, rest) and a rational motor regimen.

**Contraindications.** Emotional stress. Fast paced exercises.

**Myopia of varying degrees** is one of the defects of eye refraction, in which distant objects become difficult to distinguish. Myopia develops mainly due to prolonged visual work at close range, especially in poor lighting; as well as in children and adolescents with insufficient physical development. There are three degrees of myopia: low, medium and high. It has been established that there is a direct connection between human physical activity and visual acuity. Persons with a high degree of myopia without pathological changes in the fundus can perform almost all exercises from the physical education program, but restrictions have been introduced for them: jumping from a height of more than 1.5 m is excluded; vaults over a projectile; somersaults and headstands; jumping into the water upside down; long and intense exercises with a skipping rope; falls and sudden body shakes (wrestling); large and prolonged tension, straining; exercises with weights (dumbbells, barbells); running with high myopia. Sports games for myopia are switching vision from near to far distances and back, which helps to enhance accommodation and prevent the progression of myopia. When conducting bilateral games, it is necessary to strictly prevent and suppress rough play, pushing, tripping, hitting, etc. Great physical exertion associated with the manifestation of endurance causes a decrease in visual acuity, which requires careful monitoring of individual load tolerance.

**Shown.** Exercises for small muscles of the eyes and accommodation (ciliary muscle). Palming. Gymnastics for the eyes according to the method: Avetisova, Bates and others. General strengthening exercises. Breathing exercises. Relaxation. Cyclic exercises: walking, light jogging, swimming, skating, skiing. Walks in the open air. Exercises to harden the body.

If there are changes in the fundus, jumping (they should be replaced with squats), exercises with straining, sudden bends and movements, and shooting are excluded. This category includes slow running, general developmental exercises at a calm pace, ski training, swimming, playing table tennis, and badminton.

**With various disorders of the musculoskeletal system and posture, various congenital and acquired deformities, bone fractures, ruptures of the musculo-ligamentous system**, students often avoid physical education classes, avoid them, which often hinders their recovery and slows down physical rehabilitation. In case of severe violations of the musculoskeletal system, special gymnastics, corrective (active and passive) and general developmental exercises on simulators, with apparatus in a standing, sitting, lying position are necessary. Depending on the location and severity of damage to the musculoskeletal system, it is possible to limit and sometimes completely eliminate running exercises and

jumping. The training methodology is determined individually, exercises are selected depending on the possibility of their implementation. The main place is occupied by preventive measures aimed at preventing the progression of deformities.

**The direction of the impact of physical exercises:** to have a stabilizing effect on the spine by strengthening muscles, to develop correct posture, to improve the functional ability of the chest, and to improve general condition.

**Shown.** Formation of correct posture. Exercises on the vertical plane to develop correct posture. Strengthening the "muscle corset", exercises for the muscles of the back, abdominals, lumboiliac and muscles of the gluteal region in the position of unloading the spine (lying, knee-wrist). Special corrective symmetrical gymnastic exercises. Corrective gymnastics on a vertical plane, with a gymnastic stick. Breathing static and dynamic exercises, relaxation. Lying spine traction. Swimming (breaststroke, backstroke). Cyclic exercises: walking, skating, skiing. Hardening. Individually differentiated asymmetric exercises (corrective asymmetric exercises should be selected by a doctor with strict consideration of the localization of the process and the effect of exercises on the curvature of the spine).

**Physical exercises contraindicated for scoliosis:** hanging on the crossbar (on the gymnastic wall); passive traction (only self-traction in the starting position lying down is permissible); jumping exercises; exercises with heavy weights; exercises for the torso and legs, performed with maximum amplitude; physical exercises that increase the flexibility of the spine; torsion exercises; front crawl swimming; bending back; bending forward from a starting position lying and sitting; movements that involve the iliopsoas muscle and thereby increase lumbar lordosis ("scissors", "bicycle", raising straight legs from a lying position, raising legs while hanging on a wall bars or crossbar); bends to the sides.

**For osteochondrosis,** exercises are recommended to relax the muscles of the back, lumbar, gluteal region, legs, and cervical spine from the starting position lying on the back or stomach. Strengthening the "muscle corset". Self-massage, especially in the lumbar and sacral region.

**Physical exercises contraindicated for osteochondrosis:** circular movements of the head; tilting the head back (with cervical osteochondrosis); sharp flexion in the cervical spine; sharp turns, head tilts to the right - left; swinging movements of arms and legs with maximum amplitude; jumping exercises; any form of running; bending forward from the starting position lying and sitting (with lumbar osteochondrosis); lifting straight legs from the starting position standing and lying down (with lumbar osteochondrosis); swing your legs.

**The focus of exercises for flat feet** is related to the cause of flat feet: weakness of the muscles, ligaments, tendons of the foot; excessive stress on the feet (dancers, athletes, gymnasts, ballerinas). Education of the ability to walk without excessive spread of the feet is of preventive importance. Special exercises are performed while sitting, standing, or walking: adduction of the foot; grabbing objects with your toes; walking on the outside of the foot; rope climbing, gymnastic wall; foot massage They are used for the purpose of differentiated strengthening of the muscles that enhance supination of the hindfoot and rotate the lower leg outward.

**Shown.** For flat feet, exercises for the tibial muscles and finger flexors: with resistance, with grasping small objects with the toes and shifting them, rolling a stick (ball) with the soles of the feet in combination with general developmental exercises. Using a massage mat, foot massagers, walking on objects (dry peas, etc.). Special types of walking for the formation and strengthening of the muscular-ligamentous apparatus of the feet. Strengthening the back muscles. Swimming. Before class, it is advisable to perform self-massage of the feet.

**Physical exercises contraindicated for flat feet:** walking on the inside of the foot; long standing, especially with feet turned out; jumping exercises; run; long walking; skating skiing; ice skating; exercises with heavy weights, aerobics.

**Residual effects of traumatic brain injury.** For residual effects of traumatic brain injuries, exercises to relax the muscles of the neck and shoulder girdle are **recommended**. Exercises for balance and coordination of movements. General strengthening exercises. Dosed walking. Breathing exercises. Training of cerebral vessels using the gravitational factor: bending down, raising the pelvis from the knee-elbow position, standing on the shoulder blades from a supine position, etc. (perform carefully, at a slow pace in combination with breathing and rest to normalize blood circulation). Self-massage of the neck and head.

**Contraindications.** Running and jumping. Lifting weights. Sharp and fast turns, head tilts, circular movements. Difficult coordination movements or exercises with closed eyes.

### ***Methodological recommendations for the preparation and execution of an abstract***

**Written work (abstract)** is used as a type of control and a method for assessing the competence being developed within the framework of intermediate certification. Written work is performed by students who are temporarily or permanently released from physical activity for health reasons.

**The purpose of writing an essay** is to instill in students the skills of a brief and concise written presentation of collected materials and facts in accordance with the requirements of the curriculum. An abstract is one of the forms of educational and research work of students.

**The structural elements of the abstract are:**

- ✓ title page;
- ✓ table of contents;
- ✓ introduction;
- ✓ main part;
- ✓ conclusion;
- ✓ list of sources used;
- ✓ applications

#### REQUIREMENTS FOR STRUCTURAL ELEMENTS OF AN ABSTRACT

№	Abstract structure	Content
1.	<b>Title page</b>	<p>The title page is the first page of the abstract and serves as a source of information necessary for processing and searching the document.</p> <p>The title page contains the following information:</p> <ul style="list-style-type: none"> <li>✓ name of the university;</li> <li>✓ name of the faculty;</li> <li>✓ name of the department;</li> <li>✓ topic of the abstract;</li> <li>✓ last name and initials of the student;</li> <li>✓ position, academic degree, academic title, surname and initials of the head of the abstract;</li> <li>✓ place and date of preparation of the abstract.</li> </ul>
2.	<b>Table of contents</b>	<p>The contents of the table of contents include the introduction, the names of all chapters, sections, subsections, paragraphs (if they have a name) and the conclusion indicating the page numbers from which these elements of the abstract begin.</p>
3.	<b>Introduction (recommended length up to two pages)</b>	<p>The introduction should contain an assessment of the current state of the problem being solved. The introduction should show the relevance of the topic, goals and objectives that will be discussed in the abstract.</p> <p>The goal is formulated briefly and extremely precisely, semantically expressing the main thing that the researcher intends to do.</p> <p>The goal is specified and developed in the research objectives.</p>
4.	<b>Main part (recommended length up to 15 pages)</b>	<p>It consists of chapters (sections) that contain material on the specific topic under study. The main part analyzes and solves the problems posed in the introduction. It is necessary to make references to the authors and sources from which the material was borrowed. The serial number of the literary source according to the list of references and the page of the source are given in square brackets. For example, [4,52], where 4 is the number of the literary source in the list, 52 is the page. If several sources are indicated in square brackets, they are separated by a semicolon. For example, [8; 11;14]</p>
5.	<b>Conclusion</b>	<p>The conclusion should contain brief conclusions on results of the work performed.</p>
6.	<b>Bibliography</b>	<p>All sources that were used when writing the abstract are listed (including scientific articles, monographs, Internet resources, etc.). The list is compiled in alphabetical order by the last name of the authors (or the title of the collection) and indicates: author (in), title, publisher, year of publication.</p>

Pages of the abstract text, applications included in the abstract, tables and printouts must correspond to A4 format. The abstract must be printed on one side of a sheet of white paper with spacing (1-1.5) and font (12-14) (the abstract can be written by hand using blue or black paste).

The text of the abstract should be printed, observing the following margin sizes: left - at least 30 mm, right - at least 10 mm, top - at least 15 mm, bottom - at least 20 mm. All lines, letters, numbers and symbols must be uniformly black throughout the abstract.

The headings of the structural elements of the abstract and sections of the main part should be placed in the middle of the line without a period at the end and printed in capital letters, without underlining.

The pages of the abstract should be numbered in Arabic numerals, observing continuous numbering throughout the text. The title page is included in the overall page numbering of the abstract. Page numbers are not included on the title page or in the table of contents.

- Attention!
1. The volume of the abstract is at least 15 printed pages.
  2. The abstract must be bound.
  3. The abstract is accompanied by a CD-RW disk, the text is saved in RTF format.

### *Appendix No.3*

#### *Methodological recommendations for preparing a report*

**A report** is a detailed oral presentation of a topic made publicly. The distinctive features of the report are: oral transmission of information; public nature of the speech; stylistic uniformity of the report; clear language and cooperation between speaker and audience; the ability to concisely present the key provisions of the issue under study and draw conclusions.

Stages of report preparation:

- ✓ selection of the topic of the report;
- ✓ selection and study of the most important educational, scientific works on this topic, regulatory legal acts;
- ✓ analysis of the studied material, highlighting the most significant ones for revealing the topic of the report facts, opinions;
- ✓ drawing up a plan for the report;
- ✓ writing the text of the report in compliance with the requirements of scientific style.

Structure of the report:

1. Introduction, which indicates:
  - ✓ topic of the report;
  - ✓ purpose (main idea) of the report;
  - ✓ connection of this topic with other topics;
  - ✓ a brief listing of the issues being considered;
  - ✓ relevance, problems of the topic, modern assessment of the subject of presentation;
  - ✓ brief review of the literature studied on this topic, etc.
2. The main part, in which the speaker must deeply reveal the essence of the topic raised, usually built on the principle of a report. The goal of the main part is to provide enough data in order for listeners to become interested in the topic and want to familiarize themselves with the materials. At the same time, the logical structure of the theoretical block should not be given without visual manuals, audio-visual and visual materials.
3. Conclusion, in which:
  - ✓ the results are summed up, conclusions are formulated;
  - ✓ the significance of the problem considered is emphasized;
  - ✓ the main problems, ways and means of solving them, etc. are highlighted.



## ***Guidelines for preparing a presentation***

**PRESENTATION** is a presentation of theoretical issues determined by the relevant topic. Multimedia presentations are used so that the speaker can clearly demonstrate additional materials to his message on a large screen or monitor: photographs, video recordings of chemical and physical experiments, R-images, graphs of temperature curves, etc. These materials can also be supported by appropriate sound recordings.

Carrying out presentations allows you to logically structure the material, systematize it, present it for defense, gain experience speaking in front of an audience, and develop the communicative competencies of students.

### ***Presentation structure***

You can hold the active attention of listeners for no more than 15 minutes, and, therefore, with an average viewing time of 1 minute per slide, the number of slides should not exceed 15.

The first slide of the presentation should contain the topic of the work, the last name, first name and patronymic of the performer, the number of the training group, as well as the last name, first name, patronymic, position and academic degree of the teacher.

On the second slide it is advisable to present the purpose and summary of the presentation. Subsequent slides must be divided into sections according to the points of the work plan. The final slide contains the most important, most important content of the presentation.

### ***Recommendations for designing presentations in Microsoft Power Point***

For visual perception, the text on presentation slides should be at least 18 pt, and for headings - at least 24 pt. The presentation layout should be designed in a strict color scheme. The background should not be too bright or colorful. The text should be easy to read. The same elements on different slides should be the same color.

The space of the slide (screen) should be used as much as possible, by, for example, increasing the scale of the picture. In addition, if possible, it is necessary to occupy the upper  $\frac{3}{4}$  of the slide (screen) area, since the lower part of the screen is poorly visible from the last rows.

Each slide must contain a title. There is no period at the end of headings. Headings should reflect the conclusion from the information presented on the slide. Headings in capital letters should only be used if they are short.

The slide should contain no more than 5-6 lines and no more than 5-7 words per sentence. The text on the slides should be easy to read.

When adding pictures, diagrams, diagrams, screenshots (screenshots), you must check the text of these elements for errors. It is necessary to check the correct spelling of street names, names of authors of methods, etc.

You should not overload the slides with animation effects - this will distract listeners from the semantic content of the slide. Use the same animation effect to change slides.

### **Slide design**

<b>Style</b>	<ul style="list-style-type: none"> <li>✓ Maintain a consistent design style.</li> <li>✓ Avoid styles that will distract from the presentation itself.</li> <li>✓ Auxiliary information (control buttons) should not prevail over the main information (text, illustrations).</li> </ul>
<b>Background</b>	<ul style="list-style-type: none"> <li>✓ Cool colors (blue, green) are preferred for the background.</li> </ul>
<b>Use of color</b>	<ul style="list-style-type: none"> <li>✓ It is recommended to use no more than three colors on one slide: one for the background, one for the title, one for the text.</li> <li>✓ Use contrasting colors for background and text.</li> </ul>
<b>Animation effects</b>	<ul style="list-style-type: none"> <li>✓ Use the power of computer animation to present information on a slide.</li> <li>✓ You should not overuse various animation effects; they should not distract attention from the content of the information on the slide.</li> </ul>

## Presentation of information:

<b>Contents of information</b>	<ul style="list-style-type: none"><li>✓ Use short words and sentences.</li><li>✓ Minimize the number of prepositions, adverbs, adjectives.</li><li>✓ Headlines should attract the attention of the audience.</li></ul>
<b>Location of information on the page</b>	<ul style="list-style-type: none"><li>✓ Horizontal arrangement of information is preferable.</li><li>✓ The most important information should be located in the center of the screen.</li><li>✓ If there is a picture on the slide, the caption should be located below it.</li></ul>
<b>Fonts</b>	<ul style="list-style-type: none"><li>✓ For headings – at least 24.</li><li>✓ For information no less than 18.</li><li>✓ Sans serif fonts are easier to read from a distance.</li><li>✓ You cannot mix different types of fonts in one presentation.</li><li>✓ Bold, italics, or underlining should be used to highlight information.</li><li>✓ You should not overuse capital letters (they are read worse than lowercase ones).</li></ul>
<b>Ways to highlight information</b>	Should be used: <ul style="list-style-type: none"><li>✓ frames; borders, fill;</li><li>✓ shading, arrows;</li><li>✓ drawings, diagrams, diagrams to illustrate the most important facts.</li></ul>
<b>Amount of information</b>	<ul style="list-style-type: none"><li>✓ You should not fill one slide with too much information: people can remember no more than three facts, conclusions, definitions at a time.</li><li>✓ The greatest effectiveness is achieved when key points are displayed one on each individual slide.</li></ul>
<b>Types of slides</b>	To provide variety, you should use different types of slides: <ul style="list-style-type: none"><li>✓ with text;</li><li>✓ with tables;</li><li>✓ with diagrams.</li></ul>