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MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER EDUCATION

"MOSCOW POLYTECHNIC UNIVERSITY"
(MOSCOW POLYTECHNIC UNIVERSITY)

Faculty of Economics and Management

APPROVED BY
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WORKING PROGRAM OF THE DISCIPLINE

«Physical Education and Sports»

Direction of training/specialty
38.03.01 Economy

Profile/specialization
International business and foreign economic

Qualification
bachelor

Forms of study
full-time

Moscow, 2025

Разработчик(и):

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1. Objectives, tasks and planned learning outcomes for the discipline

The goalmastering the discipline "Physical Education and Sports" is the formation of physical culture of the individual and the ability to purposefully use various means of physical culture, sports and tourism to maintain and strengthen health, psychophysical training and self-preparation for future life and professional activity.

Achieving the set goal involves solving the following educational, developmental and health-improving problems**tasks**:

- understanding the social significance of physical culture and its role in personal development and preparation for professional activity;
- knowledge of biological, psychological, pedagogical and practical foundations physical education and healthy lifestyle;
- formation of a motivational and value-based attitude towards physical culture, attitudes towards a healthy lifestyle, physical improvement and self-development of the habit of regular exercise and sports;
- mastering a system of practical skills and abilities that ensure maintaining and strengthening health, mental well-being, development and improvement of psychophysical abilities, qualities and personality traits, self-determination in physical education and sports;
- acquisitionpersonal experience of improving motor skills And functional capabilities, ensuring general professional and applied And physical fitness for a future profession and everyday life;
- creation of a basis for creative and methodologically sound the use of physical education and sports activities for the purpose of subsequent life and professional achievements.

Planned learning outcomes for the discipline. The graduate must:

know:

- scientific and practical foundations of physical education and healthy living lifestyle.

be able to:

- use the means and methods of physical education for professional and personal development, physical self-improvement, formation of a healthy lifestyle.

own:

- means and methods of strengthening individual health, physical self-improvement, values of physical culture

individuals for successful socio-cultural and professional activities.

Training in the discipline "Physical Education and Sports" is aimed at developing the following competencies in students:

Code and name of competencies	Indicators of Competence Achievement
UK-7 Capable support due level physical preparedness For provision full-fledged social And professional activities	IUK-7.1. Competently chooses methods health saving For maintaining a healthy lifestyle, taking into account the physiological characteristics of the body and the conditions for the implementation of professional activities IUK-7.2. Supports optimal level physical loads to ensure full social and professional activity IUK-7.3. Observes norms healthy lifestyle in various life situations professional activities

2. The place of the discipline in the structure of the educational program

The discipline "Physical Education and Sports" is one of the academic disciplines of the compulsory part of the basic cycle (B1) of the main educational program of the bachelor's/specialist's degree.

“Physical Education and Sports” is logically and methodologically interconnected with the following disciplines of the OOP:

- Story;
- Philosophy;
– Life safety.

3. Structure and content of the discipline

The total workload of the course is 2 credit units (72 hours).

3.1 Types of academic work and labor intensity
(by form of education)

3.1.1. Full-time education

No. p/p	Type of academic work	Quantity hours	Semesters
			1
	Classroom lessons	**32**	**32**
	Including:		
1	Lectures		
2	Seminars/practical classes	32	32

3	Laboratory exercises		
	Independent work	**40**	**40**
	Including:		
1	Using distance learning technologies	40	40
	Interim assessment		
	Credit		X
	Total	**72**	**72**

3.1.2. Part-time and part-time education

No. p/p	**Type of academic work**	**Quantity hours**	**Semester**
			1
	Classroom lessons	**10**	**10**
	Including:		
1	Lectures	-	-
2	Seminars/practical classes	10	10
3	Laboratory exercises	-	-
	Independent work	**62**	62
	Including:		
1	Using distance learning technologies	62	62
	Interim assessment		
	Credit		X
	Total	**72**	72

3.2 Thematic plan for studying the discipline (by form of education)

3.2.1. Full-time education

No. p/p	Sections/Topics disciplines	Labor intensity, hour					
		Total	Classroom work				Independent Job
			Lectures	Seminars/ practical classes	Laboratory classes	Practical Preparation	
1.	**Physical education and sports in general cultural and professional training of students**	**5**					5
1.1	Physical education and sports in the system of vocational education	2					2
1.2	Basic scientific concepts and structure of physical education	2					2
1.3	Physical culture of the individual and methods of self-assessment formation	1					1
2.	**Healthy lifestyle and students' lifestyle**	**4**					4
2.1	Health structure and criteria for managing human health	1					1
2.2	The concept of a healthy lifestyle and healthy lifestyle of students and its components	1					1
2.3	Evaluation of work and rest regime	1					1
2.4	Assessment of human motor activity	1					1
3.	**Social and biological foundations of physical education**	**10**					10
3.1	Physical culture in the socio-biological development of man.	1					1
3.2	Anatomical systems of the body and the impact of exercise on them physical education and sports.	1					1
3.3	Psychophysiological Peculiarities of students' work	1					1
3.4	Physiological indicators of fitness	1					1
3.5	Methods of assessing physical development and correcting posture and physique	2					2

3.6	Methods of self-control functional state of the body	2					2
3.7	Methods of assessing somatic health. Express assessment by G.L. Apanasenko	2					2
4.	**General physical training in the system of physical education**	**36**		32			4
4.1	General issues of the purposeful pedagogical process physical education	1					1
4.2	Development of physical and formation of mental qualities in the process of physical education	1					1
4.3	Development of general endurance	6		6			
4.4	Development of speed and speed abilities	6		6			
4.5	Development of strength and speed-strength abilities	6		6			
4.6	Developing flexibility	6		6			
4.7	Development of agility and coordination abilities	6		6			
4.8	Methodology for self-assessment of the level and dynamics of general physical fitness	2					2
4.9	Comprehensive assessment of students' physical fitness	2		2			
5.	**Basics of the methodology independent physical exercise**	**6**					6
5.1	Organization of independent studies physical exercise	2					2
5.2	Methodology for compiling a morning hygiene routine gymnastics	2					2
5.3	Methodology for compiling a program of independent training sessions	2					2
6.	**Sports training in the system of physical education**	**6**					6
6.1	Sports: mass, high-performance, Olympic, student. Main groups of sports.	1					1
6.2	Study of needs and attitudes towards physical education and sports activities.	1					1
6.3	Individual choice of sports or physical activity	1					1

6.4	Assessment of special physical fitness in a selected sport.	2					2
6.5	Muscle relaxation tools and methods in sports	1					1
7.	**Professional and applied physical training of students**	**5**					5
7.1	Fundamentals of professional and applied physical training	1					1
7.2	Methods for studying the elements of the structure of psychophysical readiness for a future profession	2					2
7.3	Methodology of implementation industrial gymnastics taking into account the given conditions and nature of work	1					1
7.4	Methods of regulation psycho-emotional state	1					1
	Total	**72**		**32**			**40**

3.2.2. Part-time and part-time education

No. p/p	**Sections/Topics disciplines**	**Labor intensity, hour**					
		Total	**Classroom work**				**Independent Job**
			Lectures	Seminars/ practical classes	Laboratory classes	Practical Preparation	
1.	**Physical education and sports in general cultural and professional training of students**	**6**		**2**			4
1.1	Physical education and sports in the system of vocational education	2					2
1.2	Basic scientific concepts and structure of physical education	2					2
1.3	Physical culture of the individual and methods of self-assessment formation	2		2			
2.	**Healthy lifestyle and students' lifestyle**	**4**					4
2.1	Health structure and criteria for managing human health	1					1
2.2	The concept of a healthy lifestyle and healthy lifestyle of students and its components	1					1
2.3	Evaluation of work and rest regime	1					1

2.4	Assessment of human motor activity	1					1
3.	**Social and biological foundations of physical education**	**10**		**2**			8
3.1	Physical culture in the socio-biological development of man.	1					1
3.2	Anatomical systems of the body and the impact of exercise on them physical education and sports.	1					1
3.3	Psychophysiological Peculiarities of students' work	1					1
3.4	Physiological indicators of fitness	1					1
3.5	Methods of assessing physical development and correcting posture and physique	2					2
3.6	Methods of self-control functional state of the body	2		2			
3.7	Methods of assessing somatic health. Express assessment by G.L. Apanasenko	2					2
4.	**General physical training in the system of physical education**	**35**		**2**			33
4.1	General issues of the purposeful pedagogical process physical education	1					1
4.2	Development of physical and formation of mental qualities in the process of physical education	1					1
4.3	Development of general endurance	6					6
4.4	Development of speed and speed abilities	6					6
4.5	Development of strength and speed-strength abilities	6					6
4.6	Developing flexibility	6					6
4.7	Development of agility and coordination abilities	6					6
4.8	Methodology for self-assessment of the level and dynamics of general physical fitness	2		2			
4.9	Comprehensive assessment of students' physical fitness	1					1
5.	**Basics of the methodology independent physical exercise**	**6**		**2**			4
5.1	Organization of independent studies physical exercise	2					2
5.2	Methodology for compiling a morning hygiene routine	2					2

	gymnastics						
5.3	Methodology for compiling a program of independent training sessions	2		2			
6.	**Sports training in the system of physical education**	**6**					6
6.1	Sports: mass, high-performance, Olympic, student. Main groups of sports.	1					1
6.2	Study of needs and attitudes towards physical education and sports activities.	1					1
6.3	Individual choice of sports or physical activity	1					1
6.4	Assessment of special physical fitness in a selected sport.	2					2
6.5	Muscle relaxation tools and methods in sports	1					1
7.	**Professional and applied physical training of students**	**5**		**2**			3
7.1	Fundamentals of professional and applied physical training	1					1
7.2	Methods for studying the elements of the structure of psychophysical readiness for a future profession	2		2			
7.3	Methodology of implementation industrial gymnastics taking into account the given conditions and nature of work	1					1
7.4	Methods of regulation psycho-emotional state	1					1
	Total	**72**		**10**			**62**

3.3 Contents of the discipline

Section 1. Physical education and sports in general cultural and professional training of students

Topic 1. Physical education and sports in the system of professional education

Regulatory and legal foundations of the discipline "Physical Education and Sports" in educational institutions of the Russian Federation. Physical Education and Sports in the system of professional education. Application of scientific knowledge of the theory of physical education. Organization of physical education in a university.

Topic 2. Basic scientific concepts and structure of physical education

Basic scientific concepts of physical culture in connection with historical development. Physical culture as part of universal human culture. Structure of physical culture. Non-specialized physical education. Sports. Physical recreation. Motor rehabilitation.

Topic 3. Physical culture of the individual and methods of self-assessment of its development

Study of structural elements and levels of development of physical culture of the individual. Mastering the method of self-assessment of the level of development of physical culture of the individual.

Section 2. Healthy lifestyle and students' lifestyle

Topic 1. Health structure and criteria that allow managing human health

Modern concepts of human health in various sciences. Health structure and criteria that allow managing human health. Physical health. Mental health. Social health. Professional health. Factors ensuring the health of a modern person: heredity, ecology, medicine, lifestyle.

Topic 2. Concepts of healthy lifestyle and healthy lifestyle of students and its components.

The concept of a healthy lifestyle and healthy lifestyle of students and its components. Work and rest regime. Rational nutrition Personal hygiene. Hardening. Optimal motor activity. Refusal of bad habits. Culture of interpersonal relations.

Topic 3. Evaluation of work and rest regime

Studying the basics of organizing a rational daily routine for students. Mastering the methodology for assessing one's work and rest routine.

Topic 4. Evaluation of human motor activity

Study of physical activity as a fundamental factor in preventing the occurrence of non-communicable diseases. Introduction

with the reasons for the lack of movement in the modern world. Mastering the methodology for assessing motor activity.

Section 3. Social and biological foundations of physical education

Topic 1. Physical education in the social and biological development of man.

Physical culture and sport as social phenomena of society. The importance of physical culture and sport in the socialization of the individual. The biological component of physical culture. Biological patterns of the positive influence of physical exercise on the human body, physiological and biochemical laws of this phenomenon. The body is a complex biological system with no less complex evolutionarily formed regulation mechanisms. Examples of self-regulation at different levels of organization of living matter. Comparison of the nervous and humoral regulation mechanisms in the body.

Topic 2. Anatomical systems of the body and the influence of physical education and sports on them.

Positive effects of physical exercise on the following body systems: bone (human skeleton), muscle, blood system, cardiovascular, respiratory, digestive, excretory, nervous, endocrine, analyzer system. Environmental factors that affect living organisms. Substances necessary for its vital activity, as well as irritants (useful and harmful) that disrupt the constancy of the internal environment.

Topic 3. Psychophysiological characteristics of students' work

Mastering a future profession. Educational, cognitive and work activities of students. Physical and mental work. The content of physiological processes of performance, fatigue, tiredness, overfatigue, recovery. Hypokinesia and hypodynamia. Biological rhythms.

Topic 4. Physiological indicators of training Energy processes in muscles and health training. Characteristics of the body's energy systems in highly qualified athletes. Power and capacity of the energy system. Basic rules of health training. Physiological fitness indicators in a state of relative rest, when performing a standard load, and at maximum load. Economy of functions. Reaction to standard (testing) loads. Fitness indicators when performing maximum load.

Topic 5. Methods of assessing physical development and correcting posture and physique

The importance of physical development at different stages of human ontogenesis. Basic methods for determining and assessing physical development. Somatoscopy. Body type. The influence of physical education and

sports on somatoscopy indicators. Measurement of anthropometric indicators. Description of the main anthropometric indicators. Calculation of anthropometric indices.

Topic 6. Methods of self-monitoring the functional state of the body

Self-control functional states cardiovascular system. Heart rate as an important indicator of self-control. Blood pressure as one of the indicators of the functional state of the cardiovascular system. Methodology for conducting a test with a standard load. Respiratory rate as an important indicator of self-control. Vital capacity of the lungs as one of the indicators of the functional state of the respiratory system. Other indicators of the functional state of the respiratory system. Methodology for conducting functional tests.

Topic 7. Methods of assessing somatic health. Express assessment according to G.L. Apanasenko

Possibility of quantitative assessment of human health. Methods of quantitative assessment of somatic health. Advantages of assessment of the level of somatic health according to G.L. Apanasenko. Methodology of conducting express assessment of the level of somatic health according to G.L. Apanasenko. Formation of programs of health-improving activities in accordance with the level of somatic health.

Section 4. General physical training in the system of physical education

Topic 1. General issues of the purposeful pedagogical process of physical education

Methodological principles of physical education. The concept of physical education methods and their structural basis. Fundamentals of teaching movements. Motor skills and abilities as a subject of study in physical education. Physical education tools.

Topic 2. Development of physical and formation of mental qualities in the process of physical education

Physical abilities and physical qualities. physical qualities. Formation of mental qualities, personality traits in the process of physical education. General physical training (GPT). Goals and objectives of GPT.

Topic 3. Development of general endurance

General characteristics of endurance as a physical quality. General and special endurance. Physiological basis of general endurance. Types of special endurance. Means and methods of endurance development. Methods of endurance measurement.

Topic 4. Development of speed and speed abilities

General characteristic speed How physical quality. Elementary and complex forms of manifestation of speed abilities. Types of motor reaction. Types of complex motor reactions. Means and methods of speed education. Age-related features of speed education. Criteria and methods of speed and speed abilities assessment.

Topic 5. Development of strength and speed-strength abilities General characteristics of strength as a physical quality. Types of strength and strength abilities. Means and methods of developing strength. Methods of measuring strength. Methodological features of using some strength exercises.

Topic 6. Developing flexibility

General characteristics of flexibility as a physical quality. Forms of manifestation of flexibility. Types of flexibility. Means and methods of developing flexibility. Methods of measuring flexibility.

Topic 7. Development of agility and coordination skills General characteristics of agility as a physical quality. Structure of agility. Types and degrees of development of agility. Characteristics of coordination abilities. Means and methods of developing agility. Methods of measuring agility and coordination abilities.

Topic 8. Methodology for self-assessment of the level and dynamics of general physical fitness

The structure of the physical preparedness. Index physical readiness. Methodology for monitoring the level of development of physical qualities and related abilities. Self-assessment of the level and dynamics of general physical fitness to assess the effectiveness of the training process.

Topic 9. Comprehensive assessment of students' physical fitness

Comprehensive assessment of physical fitness in international practice. VFSK GTO. Methodology for comprehensive assessment of students' physical fitness. Assessment of the level of physical fitness.

Section 5. Basics of the methodology of independent physical exercise

Topic 1. Organization of independent physical exercise classes

Formation of motives for independent physical exercise. Planning independent exercise. Forms and organization of independent exercise. Methodology of independent training exercises. Hygiene of independent exercise. Self-monitoring of the effectiveness of independent exercise. Prevention of injuries during independent physical exercise.

Topic 2. Methodology for compiling a complex of morning hygienic exercises

Selection and focus of exercises. Sequence of exercises in the complex. Description of exercises. Gymnastic terminology. Intensity and dosage of exercises.

Topic 3. Methodology for compiling a program of independent training sessions

Basics of planning training sessions. The goal (direction) of the program of independent training sessions. Selection of physical education tools for implementing the program of independent training sessions. Rules of health training. Independent planning and implementation of training sessions.

Section 6. Sports training in the system of physical education

Topic 1. Sports: mass, high-performance, Olympic, student. Main groups of sports.

Sports training. The purpose of sports training. The structure of an athlete's preparedness. Characteristics of technical, physical, tactical and mental training. Features of high-performance sports and mass sports. Sports classification, its structure. Student sports. Organizational forms of sports and mass work. The system of student sports competitions. Public student sports organizations. International movement. sporty Olympic Games and Universiades.

Topic 2. Study of needs and attitudes towards physical education and sports activities

Value and need-activity approach in the theory of culture. Needs for physical education classes. Methodology for studying students' attitudes toward physical education and sports classes.

Topic 3. Individual choice of sports or physical activity

Justification of individual choice of sports (or systems of physical exercises) for students. Brief psychophysiological characteristics of the main groups of sports and systems of physical exercises.

Topic 4. Assessment of special physical fitness in a chosen sport.

Special physical training (SPT). Goals and objectives of SPT. Classification of physical exercises. Assessment of types of preparedness, functional state, technique of performing physical exercises in the chosen sport.

Topic 5. Means and methods of muscle relaxation in sports Active and passive means of relaxation in sports. Stretching and their Types characteristics. Recommended muscle stretching exercises. Basics of self-for massage techniques. Myofascial release (MFR).

Section 7. Professional and applied physical training of students

Topic 1. Fundamentals of professional and applied physical training

Definition of professional and applied physical training, its goals. List of tasks. Applied knowledge, skills, abilities, psychophysical and special qualities. Selection of means of professional and applied physical training taking into account the specifics of the educational process. Prevention of occupational diseases and injuries by means of physical culture and sports.

Topic 2. Methods of studying the elements of the structure of psychophysical readiness for a future profession

Structure of psychophysical readiness for a future profession. Primary idea of the profession. Study of professional inclinations. Description of the profession using the classification by E.A. Klimov. Study of the type of nervous system. Study of special professional abilities.

Topic 3. Methodology for conducting industrial gymnastics taking into account the given conditions and nature of work

Optimal organization of labor. Industrial physical education. Forms of industrial gymnastics: introductory gymnastics, physical pause, physical minute. Rules for selecting exercises for industrial gymnastics complexes.

Topic 4. Methods of regulating psycho-emotional state Study of the possibility of regulating the psycho-emotional state in the process of educational and work activities. Mastering the methodology of regulating the psycho-emotional state using relaxation techniques.

3.4 Topics of seminars/practical classes

3.4.1. Seminars/practical classes The practical material consists of two sections: 1. methodological – ensuring mastery of methods and methods of physical education and sports activities to achieve the educational, professional and life goals of the individual;

2. educational and training - aimed at development functional and motor abilities, the formation of necessary qualities and personality traits, the acquisition of personal experience, ensuring the possibility of independent, purposeful and creative use of physical culture and sports.

Control tasks and exercises contribute to the personal and objective recording of students' activities and the determination of the knowledge they receive in the discipline "Physical Education and Sports".

Students who have passed a medical examination and determined their health group (basic, preparatory, special "A" or "B") are allowed to participate in practical classes. An exception is made for students of the first semester, for whom this rule applies immediately after passing the medical examination. Before determining the health group, students are offered physical exercise in a gentle mode. The data of the medical form 086/u and the students' survey on their health are taken into account.

Classes are held in the main and special educational departments.

Students classified as

to the main or preparatory medical groups. The number of study groups is no more than 20 people.

Educational and training sessions in the main department are based on the use of various means of physical education, sports and professional-applied physical training.

The practical section must include individual types of track and field, sports games, and exercises in professional and applied physical training. The practical section may use physical exercises from various sports and health systems of physical exercises.

In the main department, classes are conducted with the aim of improving general physical fitness using the means of one or several types of sports, determined by the capabilities of the sports base where the classes are held.

Students are enrolled in a special educational department, assigned to a special medical group "A" or "B" due to their health condition. The number of study groups is no more than 10 people.

Practical educational material (including credit requirements and standards) for study groups of the special department is developed taking into account the medical indications and contraindications for each student.

The educational process in the special department is aimed at strengthening health, hardening the body and increasing the level of physical performance of students, as well as eliminating functional deviations and deficiencies in physical development. Special attention is given to the formation of knowledge and skills in self-control, self-massage, skills in the independent use of physical exercises in organizing a motor regime taking into account the state of health and disease.

The content and specific means of each practical lesson are determined by the teacher. The teacher is fully responsible for the correspondence of the exercises used and their dosages to the capabilities of each individual student.

For medical reasons, a student can be transferred to a special department at any time.

Students who are exempted from practical classes for a long period of time complete the course program in the distance learning system.

4. Educational, methodological and informational support

4.1 Regulatory documents and GOSTs

1. Russian Federation. Constitution (1993). Constitution of the Russian Federations:
adopted by popular vote on 12.12.1993. Text: electronic // Non-commercial Internet versions of the ConsultantPlus system. – URL: http://www.consultant.ru/document/cons_doc_LAW_28399/ .

2. Russian Federation. Laws. On physical culture and sports in Russian Federation: Federal Law of 04.12.2007 N 329-FZ. – Text: electronic // Non-commercial Internet versions of the ConsultantPlus system. – URL:http://www.consultant.ru/document/cons_doc_LAW_73038/ .

3. Russian Federation. Laws. On the Fundamentals of Health Protection of Citizens in the Russian Federation: Federal Law of 21.11.2011 N 323-FZ. – Text: electronic // Non-commercial Internet versions of the ConsultantPlus system. – URL:http://www.consultant.ru/document/cons_doc_LAW_121895/ .

4. Russian Federation. Laws. On education in the Russian Federation: Federal Law of 29.12.2012 N 273-FZ. – Text: electronic // Non-commercial Internet versions of the ConsultantPlus system. – URL: http://www.consultant.ru/document/cons_doc_LAW_140174/ .

5. Russian Federation. Resolutions. On approval of the Regulation on All-Russian physical culture and sports complex "Ready for Labor and Defense" (GTO): RF Government Resolution of 11.06.2014 N 540. Text: electronic // Non-commercial Internet versions of the ConsultantPlus system. – URL: http://www.consultant.ru/document/cons_doc_LAW_164253/.

6. Russian Federation. Orders. "On approval of state requirements of the All-Russian physical culture and sports complex "Ready for Labor and Defense" (GTO): Order of the Ministry of Sports of the Russian Federation dated 22.02.2023 N 117. - Text: electronic // Non-commercial Internet versions of the ConsultantPlus system. – URL:. https://www.consultant.ru/document/cons_doc_LAW_443204/.

4.2 Main literature

1. Pleshakov, A.A. Physical culture and physical education of students in higher education institutions: a tutorial / A.A. Pleshakov, M.A. Semenova. - M.: Moscow Polytechnic University, 2020. - 76 p. – https://online.mospolytech.ru/mod/data/view.php?d=127&rid=4450

2. Physical education of students of a special medical group: teaching aid / M.A. Semenova, E.E. Shcherbakova, M.V. Zheleznyakova. - Moscow: Moscow Polytechnic University, 2021. https://online.mospolytech.ru/mod/data/view.php?d=127&rid=4521
3. Physical education: textbook / M. Ya. Vilensky, V. Yu. Volkov, L. M. Volkova [et al.]. - 3rd edition. - Moscow: Limited Liability Company "KnoRus Publishing House", 2020. - 424 p.
4. Gilev, G. A. Physical education of students: Textbook / G. A. Gilev, A. M. Katkova; Moscow State Pedagogical University. - Moscow: Moscow State Pedagogical University, 2018. – 336 pp.https://elibrary.ru/item.asp?id=37101024

4.3 Further reading

1. Manzhelei, I. V. Physical Education: Competence-Based Approach: A Textbook / I. V. Manzhelei, E. A. Simonova. – Moscow; Berlin: Direct-Media, 2015. – 185 p.: ill. – Access mode: by subscription. – URL: https://biblioclub.ru/index.php?page=book&id=364912
2. Pismensky, I. A. Physical Education: a textbook for universities / I. A. Pismensky, Yu. N. Allyanov. - Moscow: Yurait Publishing House, 2022. - 450 p. - (Higher education). - ISBN 978-5-534-14056-9. - Text: electronic // Educational platform Yurait [site]. - URL: https://urait.ru/bcode/489224

3. Independent work of a student in physical education: a teaching aid for universities / V. L. Kondakov [et al.]; edited by V. L. Kondakov. — 2nd ed., corrected and additional. — Moscow: Yurait Publishing House, 2022. — 149 p. — (Higher education). — ISBN 978-5-534-12652-5. — Text: electronic // Yurait Educational Platform [website]. — URL: https://urait.ru/bcode/495966
4. Stebletsov, E. A. Hygiene of physical education and sports: a textbook for universities / E. A. Stebletsov, A. I. Grigoriev, O. A. Grigoriev; edited by E. A. Stebletsov. - Moscow: Publishing house Yurait, 2022. - 308 p. - (Higher education). - ISBN 978-5-534-14311-9. - Text: electronic // Educational platform Yurait [site]. - URL: https://urait.ru/bcode/496688

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6. Usakov, V. I. For students about health and physical education: a teaching aid / V. I. Usakov. - Moscow; Berlin: Direct-Media, 2016. - 105 p.:

ill., table. – Access mode: by subscription. – URL: https://biblioclub.ru/index.php?page=book&id=441285
7. Physical Education: a textbook for universities / E. V. Koneeva [et al.]; edited by E. V. Koneeva. - 2nd ed., revised and enlarged. - Moscow: Yurait Publishing House, 2022. - 599 p. - (Higher education). - ISBN 978-5-534-12033-2. - Text: electronic // Yurait Educational Platform [website]. - URL:https://urait.ru/bcode/494126
8. Physical education and sports at the university: a teaching aid: [16+] / A. V. Zavyalov, M. N. Abramenko, I. V. Shcherbakov, I. G. Evseeva. - Moscow; Berlin: Direct-Media, 2020. - 106 p.: ill. - Access mode: by subscription. – URL:https://biblioclub.ru/index.php?page=book&id=572425
9. Physical education and physical training: textbook / V. Ya. Kikot, I. S. Barchukov, Yu. N. Nazarov [et al.]; edited by V. Ya. Kikot. - 2nd ed., revised and enlarged. - Moscow: Unity-Dana, 2020. - 456 p.: ill. - Access mode: by subscription. URL: https://biblioclub.ru/index.php?page=book&id=692047
10. Physical self-improvement: a textbook for universities / A. A. Zaitsev [et al.]; edited by A. A. Zaitsev. - 2nd ed., revised and enlarged. - Moscow: Yurait Publishing House, 2022. - 108 p. - (Higher education). - ISBN 978-5-534-12579-5. - Text: electronic // Yurait Educational Platform [website]. - URL:https://urait.ru/bcode/496319

4.4 Electronic educational resources

1.https://online.mospolytech.ru/course/view.php?id=3212
2.https://online.mospolytech.ru/course/view.php?id=3732
3.https://online.mospolytech.ru/course/view.php?id=4115
4.https://online.mospolytech.ru/course/view.php?id=4117
5.https://online.mospolytech.ru/course/view.php?id=4436

4.5 Licensed and freely distributed software security

- Microsoft Windows;
- Microsoft Office software; Kaspersky Anti-Virus
- Protection System; Dr.Web anti-virus program;
-
- 7-ZIP – archiverhttps://7-zip.org.ua/ru/

4.6 Modern professional databases And information reference systems

1.http://www.fismag.ru/ Physical Education and Sport magazine website
2.http://kzg.narod.ru/ The site of the magazine Culture of Healthy Life

3.http://teoriya.ru/ru/taxonomy/term/2 Website of the magazine "Physical Culture: Education, Training, Upbringing"
4.http://teoriya.ru/ru/taxonomy/term/3 The website of the journal "Theory and Practice of Physical Culture"
5.http://www.afkonline.ru/biblio.html Website of the journal "Adaptive Physical Culture (APC).
6.https://elibrary.ru/ - Scientific electronic library
7. Official Internet portal of the legal information database http://pravo.gov.ru .
8. Portal Single window of access to educational resources http://window.edu.ru/
9. Educational platform "Yurait". For universities and colleges. Electronic library system (ELS)https://urait.ru/
10. Electronic library system (ELS) "University Library ONLINE"http://biblioclub.ru/

5. Logistics

To achieve the objectives of the discipline "Physical Education and Sports" the university uses the following sports facilities:

Gym #1 (38 B. Semenovskaya St., A-112a), a playroom with an area of 620 sq.m. equipped with a teachers' room, two changing rooms with showers, and a laboratory room.

Gym No. 2 (B. St. Semenovskaya, d.40A), training-gymnastics, with an area of 198 sq.m., equipped with gymnastics equipment (horizontal bar, parallel bars, rings, pommel horse, acrobatic track), a set of exercise machines for various muscle groups, and barbells. The gym has three changing rooms, two showers, and a teachers' room.

Gym No. 3 (M. Semenovskaya St., 12), area 280 sq.m., equipped with two wrestling mats, a complex of training machines. The gym has three locker rooms with showers, a teacher's room and a laboratory room.

Gym No. 4 (Pavel Korchagin St., 22, PK-103, 103a)

1)**strength and conditioning hall**, area 114 sq.m., equipped a set of exercise machines, barbells, weights, dumbbells;

2)**sports hall**, with an area of 50 sq.m., equipped with boxing punching bags, barbells, weights. The hall has two changing rooms, a shower, and a teacher's room.

Gym No. 5 (Pavel Korchagin St., 22, PK-102)

area of 144 sq.m., equipped with a set of exercise machines, barbells, weights, dumbbells.

Gym No. 7 (Pavel Korchagina St., 22, room 519a), area 234 sq.m., equipped with two changing rooms with showers, soft floor covering.

Gym No. 9 (Avtozavodskaya St., 16, building 4, room 3501), area 30 sq.m. The health and fitness room is equipped with two changing rooms, blood pressure measuring devices, gymnastic mats, hoops, dumbbells, and gymnastic sticks.

Sports complex on Avtozavodskaya (Avtozavodskaya st., bldg. 16, room 2802)

Equipped with two changing rooms with showers, three methodological rooms, computer and office equipment, teachers' rooms, and a room for storing equipment.

1)**Game room**, area 450 sq.m. Balls for volleyball, basketball, tennis, badminton are available.

2)**Gym**, with an area of 20 sq.m., equipped with a set of exercise machines for various muscle groups and barbells.

Sports complex "Izmailovo" (11th Parkovaya St., 36, building 2)common area of 1276 sq.m. with utility rooms (2 changing rooms with showers, 2 toilets, 3 teachers' rooms, laboratory room, inventory room):

1)**Game room**, area 365 sq.m.

2)**Gym**, with an area of 110 sq.m., equipped with a complex exercise machines for various muscle groups and barbells.

3)**Rhythmic gymnastics hall**- 90 sq.m., equipped musical arrangement, mirrors and sports equipment.

4)**Hall for general physical training and physical fitness training**- 144 sq.m., equipped musical arrangement, mirrors and sports equipment.

5)**Darts practice room**- 20 sq.m., equipped with sports equipment.

6)**Hall**, with an area of 96 sq.m., with the possibility of installing tables for table tennis.

7)**Open sports ground**area of 800 sq.m. with artificial turf.

Sports complex on Mikhalkovskaya (Mikhalkovskaya st., 7, building 2)

1) **Athletic gymnastics hall**, equipped with equipment and equipment for athletic gymnastics and strength sports (complex training devices, dumbbells, barbells, weights, kettlebells);

2) **Weightlifting hall**, equipped with equipment and inventory for weightlifting, powerlifting and kettlebell lifting (platform, racks, barbells, weights, kettlebells);

3) **Physical rehabilitation hall**, equipped with equipment and equipment for classes with students with disabilities (expanders, gymnastic sticks, dumbbells, gymnastic mats, skipping ropes).

4) **Ski resort**. Equipment and inventory for light weight training athletics and ski training (skis with boots, ski poles, Nordic walking poles)

5) **Sports Games Hall**, equipped with equipment and inventory for sports games (volleyball stands, basketball backboards, basketball and volleyball balls);

6) **Table tennis hall**, equipped with equipment and inventory for table tennis (tables for table tennis, nets, protective bumpers, rackets and balls for table tennis).

7) **Martial arts hall**, equipped with equipment and equipment for practicing martial arts (wrestling mats, covering mats, rubber expanders, boxing paws);

8) **Aerobics room**, equipped with equipment and inventory for classes aerobics (step platforms, dumbbells, gymnastic mats, jump ropes).

6. Methodological recommendations

6.1 Methodological recommendations for the teacher on training organizations

The main requirement for teaching the discipline is a creative, problem-based, interactive dialogue approach, which allows increasing students' interest in the content of the educational material.

The main form of obtaining and consolidating knowledge in the discipline is theoretical and practical materials.

The basis of the educational process in the discipline is made up of training sessions. In the process of training, various types of training sessions are used, both in-class and out-of-class. In the first lesson in the discipline, it is necessary to familiarize students with the order of its study, to reveal the place and role of the discipline in the system of sciences, its practical significance, to convey to students the requirements for successful completion of the midterm assessment, to answer any questions that arise.

The purpose of practical classes is to ensure control over the assimilation of educational material by students, expansion and deepening of knowledge obtained by them during the study of theoretical material and during independent work. Increasing the effectiveness of practical classes is achieved, among other things, by creating a creative environment.

The teacher must regularly keep a log of academic work and student attendance, and find out the reasons for students' absence from classes.

6.2 Methodological instructions for students on mastering disciplines

Independent work is one of the types of knowledge acquisition by students and is aimed at:

- study of theoretical material, preparation for classes,
- mastering a system of practical skills and abilities that ensure maintaining and strengthening health.

Independent work of students is the most important link in the educational process, without the correct organization of which the student cannot be a highly qualified bachelor/specialist.

The student must remember that independent studies should be conducted regularly. It is important to put in maximum effort, willpower and work at full capacity from the first day.

Each student must plan their own independent work based on their capabilities and priorities.

Independent work with the source of information plays a vital role in the learning process. Learning to work with such sources is a priority task for the student.

7. Evaluation Fund

7.1 Methods of monitoring and assessing learning outcomes

Students studying the discipline "Physical Education and Sports" in the main and special departments and having mastered the curriculum, fulfill the credit requirements for physical education with the corresponding entry "passed" in the credit and examination report.

The criterion for successful mastery of the educational material is the expert assessment of the teacher, taking into account the regularity of attendance at mandatory classes, knowledge of the theoretical and methodological sections of the program and the completion of established tests of general physical fitness.

Students who have attended at least 80% of the classes are allowed to perform test exercises. Students who have not met this requirement are allowed to perform test exercises only after completing the missing number of classes.

Students complete 5 tests to control their general physical fitness (Appendix No. 1), which are selected based on the capabilities of the sports facility where they are conducted.

The differentiated assessment for the semester is determined by the level of physical fitness achieved by the student based on the average arithmetic assessment for all tests, provided that each of them is completed with no less than two points (Table No. 1). An exception for individual tests may be

made for students with insufficient primary physical fitness, excess or deficiency of body weight. In this case, two points are given only for the presence of a positive shift compared to the initial indicator in this test exercise. The differentiated assessment is conditional and is only of a motivational nature.

Students who are members of university national teams in sports, who regularly participate in the educational and training process and various competitions, may, upon the recommendation of the coaches who prepare them, be exempted from taking tests and assessed based on the results of their performances for the relevant national team.

Table No. 1

Assessment of general tests physical and sports-technical training	Satisfactorily ("passed")	Fine ("passed")	Great ("passed")
Average test score in points	5.0	7.0	8.0

Students who are exempted from practical classes for a long period of time are assessed based on the results of mastering the discipline program in the distance learning system.

When introducing online learning, the criterion for the successful mastery of the educational material is the total assessment of the results of studying the electronic educational resource on the discipline, including testing knowledge of the theoretical and methodological sections of the program and completing assignments on mastering methods in methodological and practical classes.

7.2 Scale and criteria for assessing learning outcomes The indicator for assessing competencies at various stages of their formation is the achievement by students of the planned learning outcomes in the discipline "Physical Education and Sports".

Indicator	**Evaluation criteria**			
	2	**3**	**4**	**5**

know: scientific-practically e are the basics physical cultures and healthy image life.	Student demonstrates complete absence or insufficient correspondence following knowledge: scientific practical Basics physical cultures and healthy lifestyle life.	Student demonstrates incomplete correspondence following knowledge: scientific practical Basics physical cultures and healthy lifestyle life. Allowed significant mistakes, manifests itself failure knowledge, in a number of indicators, student is experiencing significant difficulties with operating knowledge in their transfer to new situations.	Student demonstrates partial correspondence following knowledge: scientific practical Basics physical cultures and healthy lifestyle life, but are allowed minor mistakes, inaccuracies, difficulties with analytical operations.	Student demonstrates complete correspondence following knowledge: scientific practical Basics physical cultures and healthy lifestyle life, freely operates acquired shadowy knowledge.
be able to: use ь creatively means and methods physical education For professional flax and personal development, physical self-perfect ences, formed and healthy image and lifestyle.	Student can't or in insufficient degree can use creatively means and methods physical education for professional wow and personal development, physical self-improvement vovanija, formations healthy lifestyle and lifestyle.	Student demonstrates incomplete correspondence following skills: use creatively means and methods physical education for professional wow and personal development, physical self-improvement vovanija, formations healthy lifestyle and lifestyle. Allowed	Student demonstrates partial correspondence following skills: use creatively means and methods physical education for professional about and personal development, physical self-improvements ovation, formations healthy lifestyle and lifestyle. The skills have been mastered, but are allowed minor	Student demonstrates complete correspondence following skills: use creatively means and methods physical education for professional wow and personal development, physical self-improvement vovanija, formations healthy lifestyle and lifestyle. Free

		significant mistakes, manifests itself failure skills, in a number of ways indicators, student is experiencing significant difficulties with operating skills when their transfer to new situations.	mistakes, inaccuracies, difficulties with analytical operations, transfer of skills to new ones, non-standard situations.	operates acquired skills, applies them in situations increased difficulties.
own: by means and methods fortifications individual leg health, physical self-perfect ences, values physical cultures personalities For successful social-cultural And professional flax activity And.	Student does not own or insufficiently owns degree possesses means and methods fortifications individual about health, physical self-improvement vovanija, values physical cultures personalities.	Student at incomplete volume owns means and methods fortifications individual about health, physical self-improvement vovanija, values physical cultures personalities, are allowed significant mistakes, manifests itself failure possessions skills in row indicators, Student is experiencing significant difficulties with application skills in new situations.	Student partially owns means and methods fortifications individual health, physical self-improvements ovation, values physical cultures personalities, skills mastered, but are allowed minor mistakes, inaccuracies, difficulties with analytical operations, transfer of skills to new ones, non-standard situations.	Student at in full owns means and methods fortifications individual about health, physical self-improvement vovanija, values physical cultures personalities, free applies received skills in situations increased difficulties.

The assessment scale for the results of the midterm assessment and their description:

Form of midterm assessment: credit.

Midterm assessment of students in the form of a credit is carried out based on the results of all types of academic work provided for by the curriculum for the discipline "Physical Education", taking into account the results of current monitoring of academic performance during the semester. The assessment of the degree of achievement of planned learning outcomes by students in the discipline "Physical Education" is carried out by the teacher conducting classes in the discipline "Physical Education" using the expert assessment method. Based on the results of midterm assessment in the discipline "Physical Education", the grade "passed" or "failed" is given.

Only those who have completed all types of academic work stipulated by the work program for the discipline "Physical Education and Sports" (knowledge of the theoretical and methodological-practical sections, regular attendance of training sessions, completion of general physical fitness tests) are admitted to the midterm assessment.

Scale assessments	**Description**
Passed	All types of academic work provided by the curriculum have been completed. The student demonstrates that knowledge, skills, and abilities correspond to those given in the tables of indicators, operates with the acquired knowledge, skills, and abilities, and applies them in situations of increased complexity. At the same time, minor errors, inaccuracies, and difficulties in analytical operations, transfer of knowledge and abilities to new, non-standard situations may be allowed.
Not accepted	One or more types of academic work provided for by the curriculum are not completed. The student demonstrates incomplete compliance of knowledge, skills, abilities with those given in the tables of indicators, significant errors are made, a lack of knowledge, skills, abilities is demonstrated for a number of indicators, the student experiences significant difficulties in operating knowledge and skills when transferring them to new situations.

7.3 Evaluation tools

7.3.1. Current control

No.	**COMPETENT**		**Scroll components**	**Technology formed vaniya computer**	**Form evaluation Wow means * ***	**Degrees of levels development competencies**
	INDEKS	**FORMULEIROVKA**				

1	**UK-7**	***Method n*** *support live should y level physical koi prepared vlennos you for provide enya full nnn social Noah and profess ional Ouch activist nost*	**know:** - scientific-practical Basics of Physical cultures and healthy lifestyle life. **be able to:** - use creative means and methods physical education for professional and personal development, physical self-improvement ania, formation healthy lifestyle and lifestyle. **own:** - means and methods fortifications individual health, physical self-improvement ation, values physical culture of personality for success social-cultural and professional activities.	methodology - practical skies and educational train full-time classes, on your own telny Job	Oral survey interviews ani, Testing nie	**Basic level** Understands: - influence health system of physical education to improve health, prevent professional diseases and harmful habits; - methods of monitoring and assessing physical development and physical preparedness; - rules and methods of planning individual various classes target direction. **Increased level** **-** able to use acquired knowledge and skills in practical activities and everyday life to increase performance, preservation and health promotion, preparation for professional activities and service in the Armed Forces RF; - chooses optimal methods and means of physical education for professional and personal development.

7.3.2. Interim assessment

No. OS	Naimenova nie evaluative means	Brief description of the assessment tool	Performance evaluative funds in FOS

1	Oral survey interview	Means control, organized How a special conversation between a teaching staff member and a student on topics related to the subject being studied and designed to clarify the volume of knowledge of the student on a specific section, topic, problem, etc.	Topics theoretical section disciplines
2	Testing	Complex exercises, allowing define general level physical the student's preparedness. Bank of questions for testing knowledge of the theoretical and methodological sections of the discipline.	Test Fund exercises, bank test questions

Appendix No. 1
to the work program

Physical Fitness Assessment Test Exercises Fund
students of the main academic department

Tests	Young men					Girls				
	SCORE									
	2	4	6	8	10	2	4	6	8	10
1. Forward bend from a standing position support (below the bench - cm)	4	5	6	7	13	6	7	8	11	16
2. Long jump from a place with a push of two legs (cm)	195	205	215	230	240	150	160	170	180	195
3. Pull-ups high crossbar (time) Weight up to 85 kg	5	7	9	10	13	-	-	-	-	-
Weight 85 kg and more	2	4	7	9	11	-	-	-	-	-
Hanging on bent hands (sec)	-	-	-	-	-	5	8	10	12	15
4. Lifting torso from lying position back for 1 min. (times). (girls – with (fastening of legs)	40	45	50	55	60	20	25	30	35	40
5. Bending and extension of arms from floor in 2 min. Pause between push-ups no more than 5 sec. (times). (girls – knees)	35	40	45	50	60	15	20	25	30	40
6. Jumping over jump rope for two legs for 1 minute (times)	70	80	90	100	110	80	90	100	110	120
7. Squats on two legs in 2 min. (times)	80	85	90	95	100	60	65	70	75	80
8. Shuttle run 6m in 1 min. (times)	25	26	27	28	29	23	24	25	26	27

Physical Fitness Assessment Test Exercises Fund
students of the special educational department

Tests	Young men					Girls				
	SCORE									
	2	4	6	8	10	2	4	6	8	10
1. Tapping test, with	≥ 8.9	8.4–8.8	7.4–8.3	6.9–7.3	≤ 6.8	≥ 11.6	10.5 - 11.5	9.2–10.4	8.1–9.1	≤ 8
2. Rise torso from lying positions on the back, hands on the shoulder blades, quantity once every 30 sec	≤ 15	16–19	20–24	25–29	≥ 30	≤ 12	13–15	16–20	21–23	≥ 24
3. Pull-ups hanging low crossbar, number of times	≤ 16	20–17	21–26	27–30	≥ 31	≤ 1	2–3	4–5	6–7	≥ 8
4. Throw stuffed ball from behind the head sitting positions (m=2 kg), m	≤ 3.79	3.80 - 4.29	4.30 - 4.89	4.90 - 5.19	≥ 5.20	≤ 2.00	2.01 - 2.49	2.50 - 3.00	3.01 - 3.49	≥ 3.50
5. Forward bend from a sitting position, cm	≤ 0	1–8	9–16	17–23	≥ 24	≤ 0	1–10	11–18	19–25	≥ 26
6. Stability on one leg, with	≤ 2	3–6	7–15	19–23	≥ 24	≤ 2	3–6	7–15	19–23	≥ 24
7. Ruffier test, e.g.	15.1 - 20.0	10.1 - 15.0	5.1–10.0	0.1–5.0	≤ 0	15.1 - 20.0	10.1 - 15.0	5.1–10.0	0.1–5.0	≤ 0

Note:

Mandatory tests are conducted at the beginning of the academic year as initial tests, characterizing the level of physical fitness of a first-year student upon admission to the university, and at the end of the semester - as determining the shift in the level of physical fitness.

At the beginning of the school year, students are tested in exercises that do not require special training and do not create a large load on the cardiovascular and respiratory systems.