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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY
Head of the Department of Physical
Education and Sports
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COLLECTION OF ASSESSMENT TOOLS
Б1.О.41 Physical education and sports
of the basic educational program
of Higher Education

Specialty	**31.05.01 General Medicine for international students (in English)** (code, name)
Degree	Specialist's degree
Profile	02 "Healthcare" (in the field of providing primary health care to the population in medical organizations: polyclinics, outpatient clinics, inpatient/outpatient facilities of the municipal health care system)
Mode of study	**Full-time**
Period of mastering the BEP	**6 years** (nominal length of study)
Department	of Physical Education and Sports

Vladivostok, 2025

1. INTRODUCTION

1.1. Collection of Assessment Tools is a document that regulates the format, content, and types of assessment tools for continuous assessment, interim examination and final (state final) examination, and graded criteria for each type of assessment tools.

1.2. Assessment tools allows to evaluate the development of universal, general professional, and professional competencies (UCs, GPCs and PCs respectively) outlined in Federal State Educational Standard of Higher Education and defined in the basic educational program of higher education for the specialty 31.05.01 General Medicine for international students (in English), profile 02 "Healthcare" (in the field of providing primary health care to the population in medical organizations: polyclinics, outpatient clinics, inpatient/outpatient facilities of the municipal health care system).

(BEP HE for the 31.05.01 General Medicine for international students (in English) specialty, section 3 Learning Outcomes Requirements of the Basic Educational Program of Higher Education)

2. DOCUMENT BODY

2.1. Types of Assessment, Formats of Assessment Tools

No.	Types of assessment	Assessment Tools Format
1	**Continuous assessment**	**Tests**
		Creative assignment
		Mini-Case Studies
2	**Interim assessment**	**Tests**
		Mini-Case Studies

3. The contents of assessment tools for continuous and interim examination are prepared by the teacher of the course

Tests for continuous and interim assessment

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**ANSWER LEVEL 1 TEST QUESTIONS (ONE CORRECT ANSWER)**
		01 Physical fitness is characterized a) by high results in sports activities b) by resistance to the influence of adverse factors + c) by the level of performance and versatility of motor experience d) by efficiency and economy of motor actions

		02 The ability to perform movements with a large amplitude due to activity of the corresponding muscles is called a) joint mobility b) special flexibility + c) active flexibility d) dynamic flexibility **03 Adaptation is defined as** +a) the process of the body changing to fit the changing environmental conditions b) alternating load and rest during the training process c) recovery process d) the system of increasing the efficiency of the functioning of the competition system and the training system **04 What most often leads to postural disorders** a) high stature b) reduction of intervertebral discs + c) weak musculature d) violation of the natural curves of the spine **05 Physical development is** a) the size of muscles, body shape, functional capabilities of body systems, physical activity b) the process of improving physical qualities when performing exercises c) the level determined by heredity and the regularity of physical education and sports + d) the process of changing the morphological and functional parameters of the human body throughout his life
		ANSWER LEVEL 2 TEST QUESTIONS (MULTIPLE CORRECT ANSWERS)
		06 Which is not a type of fatigue? a) acute; b) chronic; c) local; d) general; + e) single; + f) uncompensated. **07 Which is not a phase of fatigue?** a) compensated; b) uncompensated; + c) returnable; + d) non-refundable. **08 When choosing means and methods of workplace P.E., it is important to take into account** + a) working conditions (working posture, variety of movements, workload of individual functional systems); b) resistance to adverse labor factors; c) the level of efficiency and versatility of motor experience; + d) the dynamics, nature and degree of developing fatigue

		during the working day, week, month, year. **09 When building industrial gymnastics complexes, it is necessary to take into account** + a) working posture, body position; + b) work movements; c) the level of working capacity; d) efficiency and economy of motor actions.

Assessment criteria

"Very good" – over 80% correct answers of questions of every level

"Good" – 70-79% correct answers of questions of every level

"Satisfactory" – 55-69% correct answers of questions of every level

"Unsatisfactory" – less than 54% correct answers of questions of every level

Creative assignments

Creative assignment No.1

Using the mobile app (Johnson & Johnson Official 7 Minute Workout, Nike Training Club, Map My Fitness, etc.), create a set of 10 exercises aimed at developing physical qualities:

a) strength;
b) endurance;
c) speed;
d) coordination skills;
e) flexibility.

Evaluate the functional state by performing orthostatic and clinostatic tests before and after performing exercises, and describe the obtained indicators.

Here is an example of completing a task with a set of 10 exercises aimed at developing various physical qualities using a mobile application, as well as evaluating the functional state of the body using orthostatic and clinostatic tests. A set of 10 exercises for the development of physical qualities

a) Power
- Push-ups from the floor — strengthen the muscles of the chest, shoulders and arms.
- Squats (body weight) -develop the strength of the legs and buttocks.

b) Endurance
- Running in place with a high knee lift-improves cardiorespiratory endurance.
- Jumping Jacks - develop overall endurance and coordination.

c) Speed
- Interval sprints on the spot - speed up the reaction and speed of movements.
- Quick side-to-side shuffles - develop the speed of movement.

d) Coordination skills
- Rope jumping - improves coordination and sense of rhythm.
- One leg stand with eyes closed - trains the vestibular apparatus and coordination.

e) Flexibility
- Stretching the back of the thigh (sitting forward bend) - improves leg flexibility.
- Shoulder and neck stretching (circular movements and head tilts) - increases flexibility of the upper body.

Functional state assessment: orthostatic and clinostatic tests

Orthostatic testing: measure your pulse and blood pressure while lying down, then quickly stand up and repeat the measurement after 1 minute.

Clinostatic test: measure your heart rate and blood pressure while lying down, then sit down and repeat the measurement after 1 minute. Assess before and after a set of exercises. Changes in pulse and pressure during the transition from a horizontal position to a vertical one (orthostatic test) and from a supine position to a sitting one (clinostatic test) reflect the adaptive capabilities of the

cardiovascular system. A normal reaction is a slight increase in the pulse rate (10-15 beats per minute) and a slight decrease or stable blood pressure.

Significant heart rate spikes or pressure drops may indicate a decrease in adaptability and fatigue.

Characteristics of the obtained indicators

Before the exercise starts: normal adaptation is expected with a smooth change in indicators.

After the exercises: it is possible to increase the pulse rate at rest, but rapid normalization during the transition to an upright position indicates a good functional readiness of the body.

If after a load there is a sharp decrease in pressure or a strong increase in the pulse rate when changing positions, this is a sign of insufficient adaptation and the need to adjust the training process.

This set of exercises promotes the complex development of strength, endurance, speed, coordination and flexibility. Assessment of the functional state using orthostatic and clinostatic tests allows you to control the body's adaptation to loads and adjust the training process to improve the effectiveness and safety of classes.

Creative assignment No.2

Using the mobile app (Johnson & Johnson Official 7 Minute Workout, Nike Training Club, Map My Fitness, etc.), create a set of 10 exercises aimed at developing physical qualities (strength, endurance, flexibility, coordination, speed to choose from).

Assess the functional state of your external respiratory system by performing Body Oxygen Level Test (BOLT) and Maximal Voluntary Inspiratory Breath-Holding Time (MVIBHT) Test in resting state and after exercise.

Here ***is an example of a set of 10 exercises*** aimed at developing physical qualities (strength, endurance, coordination), compiled using a mobile application Johnson & Johnson Official 7 Minute Workout:

A set of 10 exercises

1) Squats-develop leg strength and endurance.
2) Push-ups from the floor — strengthen the muscles of the chest, shoulders and arms.
3) Jumping Jacks - improves cardiorespiratory endurance and coordination.
4) Plank —develops core muscle strength and endurance.
5) Forward lunges-strengthen the leg muscles and improve balance.
6) Chair Push-ups (triceps push-ups) - train your triceps and shoulders.
7) Running on the spot with a high knee lift-increases endurance and reaction speed.
8) Russian twist - strengthen the abdominal muscles.
9) Forward and side leg swings - develop flexibility and coordination.
10) Side Plank - strengthens the oblique abdominal muscles and improves stability.

Recommendations for implementation

a) Each exercise is performed for 30 seconds.
b) Between exercises — 10-15 seconds of rest.
c) The total duration of the complex is about 7-10 minutes (you can perform 2-3 sets to increase the load).
d) Use the video instructions and timer from the Johnson & Johnson Official 7 Minute Workout app to perform exercises correctly and control your time.

Assessment of the functional state of the external respiratory system

To assess the respiratory system, perform BOLT and MVIBHT tests:

BOLT test: take a deep breath and hold it, mark the time until you want to inhale.

MVIBHT: Hold your breath after taking a deep breath, while simultaneously counting the number of breaths you could have taken during that time.

Perform these tests at rest and immediately after performing a set of exercises. Compare the results — a decrease in the time to hold your breath after exercise will indicate the level of functional readiness of the respiratory system and its adaptation to physical activity.

This set of exercises promotes the development of strength, endurance and coordination, and the assessment of the respiratory system using BOLT and MVIBHT tests will allow you to control the body's adaptation to loads and the level of physical fitness. Using the mobile app makes it easier to complete the complex and helps maintain motivation.

Creative assignment No.3

The strength of nervous processes reflects the overall performance of a person: a person with a strong nervous system is able to withstand a more intense and prolonged load than a person with a weak nervous system. Using online resources (for example: https://frity.ru/tap-test/) use **a tapping test** to evaluate the strength of nervous processes by measuring the dynamics of the pace of hand movements. Submit a report.

Report on conducting a tapping test to assess the strength of nervous processes

Objective:

To assess the strength of nervous processes (working capacity of the nervous system) using a tapping test-measuring the dynamics of the maximum pace of hand movements.

Method:

The subject, on command, puts dots in pencil in six squares of the form, moving from one square to another clockwise every 5 seconds. The working time is 30 seconds. The test is performed first with the right hand, then with the left hand. The goal is to work at maximum speed without interruptions.

Measurement results (example)

Time, sec	Number of dots (right hand)	Number of dots (left hand)
0–5	45	40
5–10	50	42
10–15	55	43
15–20	52	40
20–25	48	38
25–30	40	35

Analysis of movement tempo dynamics

For the right hand, the tempo increases in the first 10-15 seconds with a maximum value of 55 points, then gradually decreases. This corresponds to a convex type of curve, which indicates a strong nervous system with a high ability to withstand intense stress.

For the left hand, the pace is almost even with a slight decrease by the end of the test, which corresponds to a smooth type of curve indicating the average strength of the nervous system.

Conclusions

- The subject has a fairly strong nervous system, which is manifested in his ability to maintain a high pace of work for 30 seconds.
- Some asymmetry in the indicators between the hands may be associated with the dominance of the right hand and motor skills.

The results suggest a good overall performance of the nervous system and a high level of psychomotor stability.

Creative assignment No.4

Choose a wellness technology based on the means and methods of physical education (walking, running, fitness, breathing exercises, outdoor and sports games, etc.). Using a mobile application (Johnson & Johnson Official 7 Minute Workout, Nike Training Club, Map My Fitness, etc.), various Internet resources, social networks (Rutube), make a 45-minute set of special exercises for a person, taking into account their professional activities as a medical doctor.

Example.

A general practitioner is a medical specialist who provides primary health care to the adult population on an outpatient basis, including examination, diagnosis, prescribing and monitoring treatment, as well as carrying out preventive measures. For a medical doctor, taking into account the specifics of his professional activity, prolonged stay in a static position, frequent standing and stress on the musculoskeletal system lead to back pain, neck pain, the development of osteochondrosis and other joint diseases. Contact with disinfectants, medications, and other chemicals can cause allergic reactions, skin irritation, and respiratory tract irritation. High responsibility for the life and health of patients, the need to make quick decisions, and communication with worried and demanding patients and relatives cause severe emotional stress and chronic stress. The optimal wellness technology will be a complex that includes elements of walking, breathing exercises, fitness, and exercises to strengthen the muscles of the back and neck. Such a complex will help improve overall physical fitness, relieve muscle tension and improve performance.

A 45-Minute Specialized Exercise Routine Using Mobile Apps and Online Resources

1. Warm-up (5 minutes)
   - Easy walking on the spot with breath control (you can use the app with a timer and beeps).
   - Circular movements of the shoulders and head (10 times in each direction).
2. Breathing exercises (5 minutes)
   - Deep breathing exercise: inhale through the nose for 4 counts, hold the breath for 4 counts, exhale through the mouth for 6 counts. Repeat 5-6 times.
   - Use apps for breathing exercises (for example, Breathe+).
3. Exercises to strengthen the muscles of the back and neck (15 minutes)
   - From a standing or sitting position: tilt the head back and forth, to the sides (10 times each).
   - Exercises from therapeutic gymnastics for the lumbar region
   - Head and shoulder lifts while lying on your stomach (3 sets of 10 reps).
   - Alternate drawing of the legs to the sides while lying on the stomach (3 sets of 10 times).
   - Plank on the elbows (3 sets of 20-30 seconds).
   - Exercises to strengthen the pelvic floor muscles (as recommended) — 5 minutes.
4. Fitness center (15 minutes)
   - Use the Johnson & Johnson 7 Minute Workout or Nike Training Club mobile app to perform a set of 7-8 bodyweight exercises: squats, lunges, push-ups from the wall, jumps in place, and press curls.
   - Each exercise is performed for 30 seconds with a 15-second rest period.
   - Monitor your heart rate using the app or a fitness bracelet, keeping your load in the range of 60-75% of the maximum heart rate.
5. Final stretching and relaxation (5 minutes)
   - Stretching the neck, shoulder, back and leg muscles (use video tutorials on Youtube), Slow deep breathing, muscle relaxation.

Recommendations for the implementation of the complex:

1) The complex is aimed at improving overall physical fitness, relieving muscle tension, increasing endurance and improving respiratory function.
2) Regular classes — at least 3-4 times a week.
3) Using mobile apps helps you control the intensity and technique of your exercises, as well as motivates you to exercise regularly.
4) Pay special attention to monitoring your heart rate and well-being during classes.
5) If you experience any discomfort or pain, reduce your workload or consult your doctor.

Creative assignment No.5

Using the mobile app (Johnson & Johnson Official 7 Minute Workout, Nike Training Club, Map My Fitness, etc.), create a set of 10 exercises aimed at developing special physical qualities.

Perform a set of exercises. Evaluate the intensity of the complex's load using the heart rate (heart rate).

Example.

A set of exercises for the development of special physical qualities of a volleyball player

1. Plyometric jumps (jump squats) — develop explosive strength and jumping ability of the legs.
2. Burpees-improve overall endurance and coordination.
3. Lateral Lunges-develop movement speed and leg strength.
4. Plank with Arm Raises-strengthens the body muscles and improves stability.
5. Clap Push-ups-develop explosive upper body strength.
6. Running on the spot with a high lifting of the knees (High Knees Running) — increases high-speed endurance and reaction time.
7. Rock climber-trains endurance and coordination of movements.
8. Jump Rope-develops agility, speed, and endurance.
9. Arm Swings with Light Weights-improve the strength and flexibility of the shoulder girdle.
10. Balance exercises (keeping balance on one leg)- develop stability and vestibular apparatus.

Complex implementation and load intensity assessment

Perform each exercise for 30 seconds with 15 seconds of rest between exercises. The total duration of the complex is about 10 minutes.

Use a mobile app with a heart rate measurement function (for example, the built-in heart rate monitor of a smartphone or fitness bracelet) to monitor your heart rate (HR).

Estimate the intensity of the load by heart rate: for a volleyball player, the optimal training zone is 60-85% of the maximum heart rate (maximum heart rate = 220 minus age). For example, for a 25-year-old athlete, this is approximately 117-159 beats per minute.

This complex promotes the development of explosive strength, speed, coordination, endurance and agility-key physical qualities for a successful game of volleyball. Monitoring your heart rate during exercise will help you maintain optimal intensity and avoid overloading.

Creative assignment No.5

Analyze your self-control indicators

a) Fill out the "Self-control diary".

b) Give an assessment and draw conclusions from the results obtained.

c) Use of means of recovery (what, when, and how much).

Indicators	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday.	Sunday
Content and time of physical activity							
Body weight							
Heart rate in the morning							
Heart rate in the evening							
Sleep							
Appetite							
Fatigue after motor (physical) activity							
Fatigue on the next morning							
Desire to exercise							
Schedule disruprion							

a) Filled out "Self-control diary" (example)

Indicators	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday.	Sunday
Content and time of physical activity	Running 30 min	Yoga 40 min	Rest	Strength training. 45 min	Running 35 min	Swimming 30 min	Rest
Body weight	75.2	75.0	74.8	74.7	74.5	74.6	74.6
Heart rate in the morning	68	66	67	65	64	63	62
Heart rate in the evening	78	75	77	74	73	70	69
Sleep	7	6.5	7.5	7	6	8	8
Appetite	Normal	Increased	Normal	Decreased	Normal	Normal	Normal
Fatigue after motor	Medium	High	Low	Medium	Medium	Low	Low

(physical) activity							
Fatigue on the next morning	Low	Medium	Low	Medium	Medium	Low	Low
Desire to exercise	High	Medium	High	Average	Medium	High	High
Schedule disruprion (sleep, meals, rest)	No	Yes (late sleep)	No	No	Yes (late dinner)	No	No

b) Assessment and conclusions

Physical activity: regular training 5 days a week with a variety of activities (running, yoga, strength training, swimming) promote the development of endurance and strength. Two days of rest ensure recovery.

Body weight: there is a gradual decrease in body weight by 0.6 kg per week, which indicates a positive trend while maintaining a balance of exercise and nutrition.

Heart rate in the morning and evening: the morning heart rate gradually decreases, which indicates a good recovery and adaptation of the body. Evening heart rate also decreases, which indicates a decrease in overall exercise and fatigue.

Sleep: an average of 7 hours, but in the middle of the week there are disturbances (6 hours), which can affect recovery and well-being.

Appetite: mostly normal, with slight fluctuations, which indicates adequate nutrition.

Fatigue: after training, fatigue varies from mild to moderate, which indicates the correct distribution of the load. Fatigue the next morning is minimal, which indicates a sufficient recovery.

Desire to engage: high on most days, which is a good indicator of motivation.

Regime violations: several episodes of late bedtime and eating that can negatively affect the quality of recovery.

c) Use of means of recovery

Sleep: It is recommended to aim for 7-8 hours of sleep daily for a full recovery.

Food: The diet is balanced, but you should avoid late meals, especially before going to bed.

Hydration: regular water consumption during the day (at least 1.5-2 liters).

Stretching and massage: easy post-workout stretching and 1-2 massage sessions per week to relieve muscle tension

Breathing exercises and relaxation: use breathing techniques (such as Buteyko or pranayama) to reduce stress and improve sleep.

Active recovery: on rest days — take a walk in the fresh air or do light yoga to maintain blood circulation and relieve fatigue.

The self-monitoring diary shows positive dynamics of physical activity and adaptation of the body. It is recommended that you pay more attention to your sleep and nutrition regimen for optimal recovery and increased training effectiveness. The use of restorative remedies will help reduce fatigue and improve overall performance.

Case 1.

Endurance is the ability of a person to perform physical exercises for a long time or engage in any other intense motor activity without having to take breaks for rest. This characteristic reflects the body's resistance to fatigue and its ability to maintain high performance over a long period of time.

The degree of endurance largely depends on the level of development of red muscle fibers, which have a high ability to aerobic metabolism and provide oxygen to the muscles during long-term work. In addition, the respiratory and cardiovascular systems play an important role-the better they are developed, the more efficient the delivery of oxygen and nutrients to the tissues, as well as the elimination of metabolic products, which helps to maintain activity without premature fatigue.

A high level of endurance is necessary not only for sports and fitness, but also in everyday life. Thanks to endurance, a person becomes more efficient, is able to maintain concentration and energy longer, manage to complete more tasks and achieve better results in various fields of

activity. This has a positive effect on the overall quality of life, improves health and increases the body's resistance to stress and stress.

A 19-year-old medical student wants to increase his stamina and prepare for the 10,000-meter race. To achieve this goal, it is important to take into account the characteristics of endurance development, select effective training methods and tools, and plan the training process correctly.

1. List sensitive periods of endurance development.

Answer: Endurance develops from an early age and lasts up to 30 years, with the most intensive growth observed at the age of 14 to 20 years. During this period, the body is most susceptible to moderate and high-intensity training loads, which allows you to effectively increase your aerobic capacity and adapt to prolonged physical exertion.

2. Training with what intensity is most effective for increasing stamina? How to determine the intensity?

Answer: Training in the aerobic zone with moderate and submaximal intensity is considered the most effective for developing endurance. This corresponds to a heart rate (HR) of approximately 115-120 beats/min (start of exercise) to 160-190 beats/min (submaximal exercise). The intensity can be determined by the pulse, based on the percentage of the maximum heart rate (approximately 60-85% of the maximum). The duration and repeatability of active rest exercises between sets is also important.

3. What remedies do you recommend to improve one's stamina?

Answer: Cyclical exercises such as running, swimming, cycling, skiing, and acyclic repetitive exercises (such as interval training) are recommended to increase endurance. It is important to use repeated and continuous methods with dosed loads and active rest. Exercises to develop the respiratory and cardiovascular systems, strengthen muscles, and improve overall fitness are also useful.

4. What method of developing endurance will you recommend to the student?

Answer: To prepare for the 10,000-meter run, the optimal method is interval training with repeated loads of medium and submaximal intensity. This method combines alternating work and active recreation, which allows you to effectively develop aerobic capabilities and increase overall endurance. It is also advisable to include continuous long runs at a moderate pace to build basic aerobic endurance.

5. How long will it take a student to prepare for the 10,000-meter race?

Answer: Training for the 10,000-meter race usually takes 8 to 12 weeks with regular training 3-5 times a week, taking into account the initial level of physical fitness. This period includes a gradual increase in the volume and intensity of training, as well as recovery activities. It is important to follow a gradual and individual approach to avoid overwork and injuries.

6. Rate your running workout using the running pace and speed calculator: http://frs24.ru/st/kalkulator-tempa-i-skorosti-bega://frs24.ru/st/kalkulator-tempa-i-skorosti-bega/

7. Study the age periods of the levels of GTO standards: https://gto-normativy.ru/beg/beg-na-10-km-normativy-i-vremya and determine what age level you belong to

Test for Case 1

1. Endurance is

1) ability to run fast and short distances

+2) the ability of the body to perform any work for a long time without noticeably reducing its performance, as well as its recovery

3) the ability to quickly recover from sleep;

4) the ability to lift heavy objects the maximum number of times.

2. B First of all, the development of endurance depends on
1) from intramuscular energy sources;
2) from the technique of motor action mastery
3) the level of development of motor abilities
+4) all of the above.

3. Endurance, the type of which characterizes the ability to maintain a high load intensity for a short time, is
1) general endurance;
+2) high-speed endurance;
3) specific endurance;
4) power endurance.

4. No urgent changes are recorded before and after endurance training sessions
1) the functional state of the central nervous system;
+2) body weight.
3) functional state of the cardiovascular system;
4) the functional state of the external respiratory system.

5. List the methods that allow you to develop endurance
1) uniform exercise;
2) repeated exercise;
3) continuous exercise;
+4) uniform exercise, repeated exercise, continuous exercise

6. The type of training that most effectively develops aerobic endurance is
+1) interval running with alternating exercise and rest;
2) maximum strength training;
3) stretching and flexibility training;
4) long jump.

7. Which of the following is NOT a means of developing endurance?
1) long running at a moderate pace;
2) interval training;
+3) strength exercises with large weights and a small number of repetitions;
middle-distance cycling.

Case 2.

Low physical activity: Health workers spend a lot of time in the office, at the computer, or at the patient's bedside, which limits their ability to move and exercise regularly. Reduced physical fitness: a lack of regular exercise leads to poor endurance, reduced muscle tone, chronic fatigue, and an increased risk of occupational diseases (such as diseases of the musculoskeletal system, cardiovascular system). Health and work consequences: Poor physical fitness reduces overall performance, increases fatigue, impairs concentration and performance of professional duties, and increases the likelihood of mistakes and injuries.

Employees of the medical institution — P. Y., 48 years old, and M. B., 36 years old-decided to improve their physical fitness. P. Y. has no abnormalities in health, but for 20 years has not been engaged in regular physical activity. No complaints, does not smoke, blood pressure 140/86 mm Hg M. B. is practically healthy, has been jogging regularly for the last 5 years and does gymnastics 2-4 times a week. She was recently added to the volleyball team, and she wants to improve her fitness level.

1. What health group and age category do employees P. Y. and M. B. belong to?

Answer: P. Y. belongs to the main health group, since he has no serious illnesses, although he did not regularly engage in physical activity.
M. B. also belongs to the main health group, taking into account regular sports and the absence of complaints. Age categories: P. Y.-mature adult (45-59 years), M. B.-adult (18-44 years).

2. How would you formulate their physical fitness goals?
Answer: For P. Y.: increase of general physical endurance, normalization of blood pressure, strengthening of the cardiovascular system and formation of regular motor activity.
For MB: improving the level of physical fitness, developing special physical qualities for playing volleyball (speed, coordination, strength), improving overall endurance and muscle tone.

3. What level of physical activity would you recommend for them?
Answer: P. Y.: Start with regular walks and light aerobic exercises, gradually introduce strength training and flexibility exercises, monitor blood pressure, and possibly consult a doctor to determine a safe level of exercise. M. B.: a combination of interval training, strength training, coordination and reaction training, participation in volleyball training, use of the following exercises: mobile applications for monitoring the training process.

4. What do you think could be the ways to achieve these goals?
Answer: P. Y.: Start with regular walks and light aerobic exercises, gradually introduce strength training and flexibility exercises, monitor blood pressure, and possibly consult a doctor to determine a safe level of exercise. M. B.: a combination of interval training, strength training, coordination and reaction training, participation in volleyball training, use of the following exercises: mobile applications for monitoring the training process.

5. Use mobile apps to create a physical training program for P.Y. (for a week).

Recommended physical training program for P. Y. (for a week)

Day of the week	Type of workout	Description	Duration	Recommended app
Monday	Walking with pulse control	Slow walking with a gradual increase in pace, heart rate monitoring via the pedometer app	30-40 min	"Walking for weight loss" (Walking Tracker)
Tuesday	Light stretching and breathing	exercises Muscle stretching exercises and breathing exercises to reduce stress and improve blood circulation	20-30 min	Sworkit Lite (stretching, yoga)
Wednesday	Cardio- Low - intensity	exercise Bike or elliptical trainer, controlled load	30 min	Cardio, HIIT and Aerobics (Fitify)
Thursday	Self-weight strength	exercises for major muscle groups (squats, wall push-ups, plank) with video instructions	20-30 min	Sworkit Lite or 7-minute workout from Johnson & Johnson
Friday	Walking or light jogging	Slow running or fast walking with pulse monitoring	30-40 min	"Walking for weight loss" or Nike Training Club
Saturday	Recovery training	Yoga or breathing exercises for relaxation and recovery	20-30 min	Yoga club (Yoga Studio)
Sunday	Rest or active recovery	Walking in the fresh air, light gymnastics	20-30 min	Any convenient application for walking or yoga

Key recommendations:

Heart rate monitoring: Use apps that measure and monitor your heart rate so that you don't exceed the safe exercise level (approximately 60-70% of the maximum heart rate, which is calculated as 220 minus age).

Gradually increase the load: start with minimal loads, gradually increasing the duration and intensity of training to avoid overloading and injuries.

Regularity: Exercise at least 5 times a week to develop a steady habit of physical activity.

Variety: combine cardio, strength training, and breathing exercises to strengthen your body in a comprehensive way.

Motivation: Use reminders and app progress tracking to keep you motivated and disciplined.

Examples of applications to use:

"*Walking for weight loss" —Walking Tracker)* - a convenient pedometer with pulse monitoring and statistics.

Sworkit Lite — a set of exercises with video instructions, including stretching, weight and breathing exercises.

7-minute workout from Johnson & Johnson — short, effective bodyweight workouts.

Cardio, HIIT and aerobics (Fitify) — programs for cardio training and endurance development.

Yoga Club — видеоурокиуoga video tutorials for relaxation and recovery.

Such a plan will allow P. Y. to safely and effectively increase the level of physical fitness, strengthen the cardiovascular system and improve overall well-being.

6. Watch a fragment of a volleyball game https://www.youtube.com/watch?v=v7_zHOl1aE4 and do an analysis of the players 'actions.

7. What qualities are necessary for playing volleyball?

Answer:

- Speed and responsiveness
- Coordination of movements
- Strength and endurance
- Agility and flexibility
- Teamwork and tactical thinking

8. Create a physical fitness improvement program for M.B. for a week (using mobile applications).

Day of the week	*Type of workout*	*Description*	*Duration*	*Intensity*
Monday	*Aerobic training (jogging)*	*Easy running with heart rate monitoring via the app*	*30-40 min*	*Medium*
Tuesday	*Strength exercises + stretching*	*Bodyweight exercises, yoga or Pilates*	*45 min*	*Medium*
Wednesday	*Workout Volleyball training*	*Techniques, tactics, game exercises*	*60 min*	*Medium-high*
Thursday	*Interval running*	*Alternating high and low intensity running using the app*	*30 min*	*High*
Friday	*Recovery training*	*Easy gymnastics, breathing exercises*	*30 min*	*Low*
Saturday	*Workout Volleyball training*	*Game practice, coordination and reaction work*	*60 min*	*Medium-high*
Sunday	*Rest or active recovery*	*Walking, swimming or yoga*	*30-60 min*	*Low*

Interview questions

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**ANSWER THE QUESTIONS** **Physical Culture and Sport in Russia. IT technologies in the field of physical culture and sports. Digital Transformation strategy of Physical Culture and Sports of the Russian Federation** 1. What is the role of physical culture and sports in modern Russia? 2. What are the main areas of development of physical culture and sports in the Russian Federation defined by state programs? 3. What is the role of physical culture in shaping a healthy lifestyle in Russia? 4. What are the main stages of the development of physical culture and sports in Russia that you know? 5. How does the state support the development of mass sports in Russia? 6. What are the most significant sporting achievements of Russian athletes in the international arena that you can name? 7. What are the most popular sports in Russia? 8. What is the structure of the physical education system in Russian educational institutions? 9. What federal programs are being implemented in the Russian Federation to support and develop sports? 10. What is the role of the Olympic Movement in the development of sports in Russia? 11. What are the challenges and challenges facing the modern Russian sports system? 12. How is adaptive physical education and sports for people with disabilities developing in Russia? 13. What are the main tasks and functions of the Ministry of Sports of the Russian Federation? 14. What sports facilities and infrastructure have been created in Russia in recent years? 15. How is the training of the sports reserve conducted in Russia? 16. What measures are being taken to prevent doping in Russian sports? 17. What are the current trends in the development of the fitness industry in Russia? 18. What does the concept of "digital transformation" include

		in the field of physical culture and sports? 19. What IT technologies are used to monitor athletes' physical activity and health? 20. How are mobile apps used to improve the physical fitness of the population? 21. What are the advantages of digital online services in organizing sports events? 22. What is the significance of social networks for promoting a healthy lifestyle and sports? 23. What digital platforms and services are most in demand in the Russian sports environment? **Professional and Applied Physical Training (PAPT). Digital online services, mobile apps, and social networks to improve physical fitness.** 1. What is Professional and applied physical training? 2. What is the main purpose of the physical education program in the system of physical education 3. ? What tasks does the physical education program solve in the training of specialists? 4. Why is physical fitness considered a specialized type of physical training? 5. How does physical fitness profiling relate to the specific professional requirements of a general practitioner? 6. What are the main factors determining the content of a general practitioner's professionally applied physical training (PAPT)? 7. What physical qualities are developed in the process of PAPT? 8. What types of exercises are used in PAPT for developing a general practitioner's professional skills? 9. What is the role of general development and special exercises in the PAPT? 10. How do digital online services help monitor physical fitness? 11. Which mobile apps are most effective for professional and applied physical training? 12. How social media contributes to motivation and maintaining physical activity. 13. Social networks, being a powerful tool in modern society, play a significant role in the formation and strengthening of motivation for physical activity. They provide a platform for sharing experiences, where users can share their achievements, which contributes to the creation of a community that supports a healthy lifestyle. 14. Publications about training, achievements and healthy eating inspire others to take active actions, creating an atmosphere of competition and mutual assistance. Users, seeing the success of their peers, feel a desire to keep up and strive for their own achievements. 15. In addition, social networks allow you to set goals and track your progress. With the help of various apps and support groups, users can record their results, which increases the sense

		of responsibility and commitment to the chosen path. 16. Thus, social networks not only inform, but also motivate, creating a dynamic environment that promotes the maintenance of physical activity and the formation of sustainable habits? 17. What are the advantages of digital technologies for individualizing training programs? 18. How do digital tools help you track your progress and adjust your workouts? 19. How do digital services integrate into the learning process in the EAPC? 20. What examples of successful use of IT technologies in the PPP are known to you? 21. State the goals and objectives of professional and applied physical education for a dentist. 22. What theory is the basis of applied physical culture (PFC)? 23. Characterize the main factors determining the professionally applied physical culture of a general practitioner. 24. List harmful occupational factors in the work of a general practitioner. Give a description to each of them the factor. 25. Describe the methodology for selecting means of professionally applied physical culture depending on the professional activity of a general practitioner

Assessment criteria

"Very good" – over 80% correct answers of questions of every level

"Good" – 70-79% correct answers of questions of every level

"Satisfactory" – 55-69% correct answers of questions of every level

"Unsatisfactory" – less than 55% correct answers of questions of every level

Standardized case studies and checklists for the **Б1.О.41 Physical education and sports** course

Case Study No.1

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** You just gave a lecture on the benefits of motor activity. One of those present states that he was acquainted with two men who died while exercising in the last 5 years. In addition, he had encountered similar reports in the newspapers. In his opinion, it is better to lead a quiet life, and not engage in motor activity,

		exposing yourself to such a risk.
Q	1	Question: Which lifestyle has a higher risk of cardiovascular deterioration, a sedentary lifestyle or an active lifestyle?
Q	2	Question: Under what rule can the risk during classes be minimized?

Case Study No.1 Checklist

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** You just gave a lecture on the benefits of motor activity. One of those present states that he was acquainted with two men who died while exercising in the last 5 years. In addition, he had encountered similar reports in the newspapers. In his opinion, it is better to lead a quiet life, and not engage in motor activity, exposing yourself to such a risk.
Q	1	Question: Which lifestyle has a higher risk of cardiovascular deterioration, a sedentary lifestyle or an active lifestyle?
A		Correct answer The risk of deterioration of the cardiovascular system is higher with a sedentary lifestyle than with an active lifestyle. Studies show that prolonged sitting significantly increases the risk of cardiovascular diseases, including heart attacks, strokes, and heart failure, as well as increases overall mortality. At the same time, even meeting the recommended standards of physical activity does not fully compensate for the harm caused by excessive sitting. Therefore, an active lifestyle with regular physical activity and reduced time spent in a sitting position significantly reduces the risk of cardiovascular diseases.
Q	2	Question: Under what rule can the risk during classes be minimized?
A		Correct answer Risk during physical activity can be minimized if the load increases gradually — from low to high-taking into account individual health and fitness parameters. This approach allows the body to adapt to the increased demands without excessive stress and overload, reducing the likelihood of injuries and deterioration of health
R2	Very good	is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep

		insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.
R1	Good/Satisfactory	is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.
R0	Fail	is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an answer even with additional guiding questions.

Case Study No.2

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** Results of the survey of weightlifters showed that 38% has flattened arch of the foot. Explain why this happened.
Q	1	Question: Specify the time of ossification of the tarsal and metatarsal bones.
Q	2	Question: What recommendations will you give the athletes to prevent this pathology?
Q	3	Question: What muscles do they need to train?

Case Study No.2 Checklist

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people

		with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** Results of the survey of weightlifters showed that 38% has flattened arch of the foot. Explain why this happened.
Q	1	Question: Specify the time of ossification of the tarsal and metatarsal bones.
A		Correct answer Flattening of the arch of the foot in weightlifters is the result of adaptive changes and overloads of the musculoskeletal system, which requires attention to prevention and correction by strengthening the muscles of the foot, choosing the right shoes and using orthopedic products. Ossification of the metatarsal begins in the prenatal period and continues into childhood, and ossification of the metatarsal bones begins at about 3-5 years and ends in adolescence (12-23 years).
Q	2	Question: What recommendations will you give the athletes to prevent this pathology?
A		Correct answer Strengthening the muscles of the foot and ligaments: regularly perform special exercises for the development of the musculoskeletal system of the foot — walking on your toes, heels, rolling from toe to heel, rolling a ball with your foot, collecting small objects with your toes; correct selection of shoes; using orthopedic products.
Q	3	Question: What muscles do they need to train?
A		Correct answer To maintain the arch of the foot and prevent flat feet, it is important to train: the posterior tibial muscle is the main stabilizer of the longitudinal arch of the foot. Short muscles of the foot (the short flexor of the fingers, the muscle that withdraws the thumb, etc.) that support the arch of the foot and provide coordination of movements; lower leg muscles involved in cushioning and stabilizing the foot; muscles responsible for balance and coordination (for example, the muscles of the ankle joint).
R2	Very good	is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.
R1	Good/Satisfactory	is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.
R0	Fail	is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an

		answer even with additional guiding questions.

Case Study No.3

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** A 52-year-old employee of the polyclinic with a disease of the visual organs (moderate myopia) wants to engage in physical culture and sports, but is concerned that working out may lead to deterioration of his health.
Q	1	Question: What types of eye exercises do you know?
Q	2	Question: List the physical exercises that this employee is allowed to perform
Q	3	Question: What are the contraindications?

Case Study No.3 Checklist

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** A 52-year-old employee of the polyclinic with a disease of the visual organs (moderate myopia) wants to engage in physical culture and sports, but is concerned that working out may lead to deterioration of his health.
Q	1	Question: What types of eye exercises do you know?
A		Correct answer Exercises according to the method of Vladimir Zhdanov: focusing your gaze on near and far objects, moving your eyes up and down, left and right, circular movements, looking at the

		details of objects. Avetisov complex: smooth eye movements up and down, left and right, circular movements, strong closing and relaxation of the eyes, frequent blinking. Finger exercises: focusing your gaze on the tip of your finger as it approaches and moves away from the face, alternately closing your eyes with your palms. Massage and relaxing exercises for the eyes: light stroking and massaging of the eyelids and the eye area.
Q	2	Question: List the physical exercises that this employee is allowed to perform
A		Correct answer For those with mild to moderate myopia, the following activities are allowed: table tennis; jogging; cycling; skiing and skating; sports walking; and non-intensive swimming. Outdoor games such as volleyball, badminton, tennis and lapta are also allowed. During such games, the eyes are constantly moving, watching the ball, and this has a positive effect on the eye muscles
Q	3	Question: What are the contraindications?
A		Correct answer Infectious and inflammatory diseases of the eyes (conjunctivitis, blepharitis, etc.); retinal detachment or predisposition to it; recovery period after operations on the visual organs; acute eye conditions (injuries, sharp deterioration of vision) ; with moderate and severe myopia, sports activities such as boxing, wrestling, lawn tennis, etc. are contraindicated. football, skiing, cycling, equestrian sports
R2	Very good	is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.
R1	Good/Satisfactory	is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.
R0	Fail	is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an answer even with additional guiding questions.

Case Study No.4

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity

C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** The Romberg test is used to assess the condition of the vestibular apparatus, proprioceptive (deep) sensitivity, and the functions of the central nervous system involved in maintaining balance and coordination of movements.
Q	1	Question: How long can a person with no proprioreceptive/vestibular impairment hold balance in the Romberg test with their eyes closed?
Q	2	Question: Is maintaining balance for 13 seconds in the Romberg test a normal, satisfactory or unsatisfactory result?
Q	3	Question: What possible reasons can explain the decrease in the equilibrium retention time in the Romberg test from a student?

Case Study No.4 Checklist

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** The Romberg test is used to assess the condition of the vestibular apparatus, proprioceptive (deep) sensitivity, and the functions of the central nervous system involved in maintaining balance and coordination of movements.
Q	1	Question: How long can a person with no proprioreceptive/vestibular impairment hold balance in the Romberg test with their eyes closed?
A		Correct answer Normally a person is able to hold the pose without tremor for 15 seconds or more. If this time is less than 15 seconds, the result is evaluated as unsatisfactory
Q	2	Question: Is maintaining balance for 13 seconds in the Romberg test a normal, satisfactory or unsatisfactory result?
A		Correct answer Holding the balance for 13 seconds is considered

		unsatisfactory, as this is less than the standard time of 15 seconds. This may indicate the presence of disorders of the vestibular apparatus or proprioception.
Q	3	Question: What possible reasons can explain the decrease in the equilibrium retention time in the Romberg test from a student?
A		Correct answer Reduced balance retention time may be associated with vestibular system disorders, proprioceptive sensitivity, cerebellar damage, as well as functional disorders or neurological diseases. In addition, instability can occur with insufficient physical training, fatigue, or neurosis.
R2	Very good	is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.
R1	Good/Satisfactory	is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.
R0	Fail	is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an answer even with additional guiding questions.

Case Study No.5

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** During the medical and pedagogical supervision, the timing of the physical education class was examined and the class session efficiency (ratio of time spent on physical activity and other assignments to the total length of the class session) was assessed. This indicator was 40%.
Q	1	Question: How can a 40% class session efficiency be interpreted in terms of the effectiveness of a P.E. class?

Q	2	Question: What recommendations can be given to the teacher to increase the class session efficiency?
Q	3	Question: Why does medical and pedagogical supervision include an analysis of class session efficiency and how does this relate to the prevention of overwork in students?

Case Study No.5 Checklist

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.01	General Medicine for international students (in English)
C	UC-7	Is able to maintain physical fitness to ensure fulfilling social and professional activity
C	GPC-3	Is capable of counteracting use of performance-enhancing drugs in sports
F	A/04.7	Implementation and monitoring of the effectiveness of medical rehabilitation of patients, including implementation of individual rehabilitation or habilitation programs for people with disabilities; assessment of the patient's ability to work
I		**READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS** During the medical and pedagogical supervision, the timing of the physical education class was examined and the class session efficiency (ratio of time spent on physical activity and other assignments to the total length of the class session) was assessed. This indicator was 40%.
Q	1	Question: How can a 40% class session efficiency be interpreted in terms of the effectiveness of a P.E. class?
A		Correct answer A class session efficiency of 40% means that 40% of the class session time was devoted to active physical exercises, and the rest of the time was devoted to rest, explanations and organizational aspects. This indicator indicates an average level of workload: the class is fairly balanced, but there is an opportunity to increase the proportion of active work to increase efficiency, especially if the physical fitness of students allows that.
Q	2	Question: What recommendations can be given to the teacher to increase the class session efficiency?
A		Correct answer To increase the efficiency of the class session, the teacher is recommended to reduce the time for explanations and organization, use more dynamic teaching methods, reduce the duration and frequency of rest breaks, and include exercises with less recovery time. At the same time, it is important to take into account the level of training and the state of health of those involved in order to prevent overwork.
Q	3	Question: Why does medical and pedagogical supervision include an analysis of class session efficiency and how does this relate to the prevention of overwork in students?
A		Correct answer

		Analysis of the class session efficiency allows one to objectively assess the ratio of active work and rest time, which is important for controlling the load on the body. Medical and pedagogical monitoring, taking into account efficiency, helps to identify excessive or insufficient loads, adjust the training process in a timely manner, and thereby reduce the risk of fatigue, injuries, and deterioration in the health of students.
R2	Very good	is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.
R1	Good/Satisfactory	is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.
R0	Fail	is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an answer even with additional guiding questions.

Assessment criteria

"Very good" – over 80% correct answers of questions of every level

"Good" – 70-79% correct answers of questions of every level

"Satisfactory" – 55-69% correct answers of questions of every level

"Unsatisfactory" – less than 55% correct answers of questions of every level

4. Assessment criteria for learning outcomes

"Pass" is given to a student who has shown a sufficiently strong knowledge of the basic concepts of the subject; is able to complete specific practical tasks outlined in the program with no outside help, use recommended reference material, and correctly evaluate the results.

"Fail" is given to a student who has significant gaps in knowledge of the basic concepts of the subject, is not able reach the correct solution to a specific practical task outlined in the curriculum even with outside help.