

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

BLACK SEA NATIONAL UNIVERSITY

named after Peter's grave

Medical Institute

Department of Hygiene, Social Medicine and Public Health



**CURRICULUM WORK PROGRAM**

**"Physical rehabilitation and sports medicine"**

Area of knowledge 22 "Health care"

Specialty 222 "Medicine"

Developer  
Head of the Department of Developer  
Guarantor of the educational program  
Director of the Institute  
Chief of NMV

Zyuzin VO

Zyuzin VO

Klymenko MO

Grishchenko GV

Shkirchak SI

## 1. Description of the discipline

Characteristic	Characteristics of the discipline
Name of discipline	Physical rehabilitation and sports medicine
Branch of knowledge	22 Health care
Specialty	222 Medicine
Level of higher education	Master
Discipline status	Normative
Curriculum	4
Academic year	2019 - 2020
Semester numbers	7th
Total number of ECTS credits / hours	3 credits / 90 hours
Course structure:	
- lectures	10 hours
- practical training	30 hours
- hours of independent work	50 hours
Percentage of classroom load	44%
Language of instruction	
Form of intermediate control	
Form of final control	Differentiated credit - 7th semester

## 2. Purpose, tasks and planned learning outcomes

**The purpose of the discipline** "Physical Rehabilitation and Sports Medicine" follows from the objectives of the educational-professional training program for graduates of medical institutions of higher education and is determined by the content of those systems of knowledge and skills that must have a doctor. The purpose of studying the discipline "Physical Rehabilitation and Sports Medicine" is: to study the theoretical foundations of physical rehabilitation and sports medicine, which is the basis of physiotherapy training and sports-medical worldview of a specialist in "Medicine"; mastering by students of the necessary knowledge, skills, actions, target tasks, skills that correspond to the ultimate goals of studying the discipline in accordance with the educational-professional program (OPP):

- formation of knowledge and skills to study the impact of physical rehabilitation factors on the human body and public health;
- formation of the ability to assess the results of physical rehabilitation and their compliance with the requirements;

- formation of the ability to draw up medical recommendations for people engaged in physical culture and sports.

**The main objectives** of the discipline "Physical Rehabilitation and Sports Medicine" are:

- laying the theoretical foundations of physical rehabilitation and sports medicine as a science (terminology, laws, methods, principles, normative and methodological support of rehabilitation);
- practice of practical skills on: carrying out rehabilitation measures in the clinic in order to adapt the patient to work at the previous workplace or retraining for another specialty;
- conducting, organizing and carrying out regular medical monitoring of the health of persons engaged in health-improving physical culture and sports;
- mastering laboratory methods of research of persons who have undergone rehabilitation or health-improving physical culture
- use of factors of physical rehabilitation and methods of sports medicine to strengthen human health, harden the body.

**Expected learning outcomes.** As a result of studying the discipline, students have:

1. Analyze the condition of the patient's body and the influence of rehabilitation factors on the restoration of functions of organs or systems.
2. Demonstrate mastery of methods of adapting the patient to everyday life and work.
3. Interpret the general patterns of connection between health and health physical culture.
4. To substantiate the use of methods of physical rehabilitation and sports medicine for the prevention of diseases and injuries.
5. Ability to carry out demonstration supervision of the rehabilitated.
6. Determine the state of health, physical development and recommendations of rational means and methods of sports training.
7. Promoting high efficiency of rehabilitation and physical training and health-improving measures.
8. Scientific substantiation of means and methods of physical rehabilitation and sports medicine.
9. Development of new, most effective methods of physical rehabilitation, diagnosis, treatment and prevention of pre-pathological conditions.

**According to the OPP, students must:**

○ *know* :

- purpose, main task of physical rehabilitation and sports medicine;
- principles, types, periods and stages of rehabilitation;
- mechanism of therapeutic action of physical exercises;
- means of medical physical culture and sports medicine;
- forms of medical physical culture and sports medicine;

- periods of application of exercise therapy and methods of sports medicine in rehabilitation programs;
- general requirements for the methodology of rehabilitation classes;
- motor modes, dosage of physical activity;
- evaluation of the effectiveness of the methods of physical rehabilitation and sports medicine.
  - o ***be able***
- to form requirements to conditions of carrying out of actions of physical rehabilitation and sports medicine;
- assess the patient's health, the condition of his organs and systems and the factors that affect health;
- interpret methods and means of physical rehabilitation and sports medicine;
- to form rehabilitation measures on the basis of data on the relationship between the results of physical rehabilitation and the state of health of patients.

***List of practical skills***

1. Be able to restore the functions of organs or systems (fully or partially).
2. Be able to adapt the patient to everyday life and work.
3. Be able to involve the patient in the labor process.
4. Be able to carry out auxiliary supervision of the rehabilitated.
5. To determine the state of health, physical development and recommendations of rational means and methods of physical rehabilitation, physical education and sports training.
6. Be able to organize and carry out regular medical monitoring of the health of all persons engaged in fitness and sports.
7. Determining the most rational sanitary and hygienic conditions for physical rehabilitation and health-improving physical culture and sports.
8. To promote the correct conduct of physical rehabilitation, physical training and sports.
9. Be able to ensure high efficiency of physical rehabilitation and fitness activities.
10. Be able to scientifically substantiate the means and methods of physical rehabilitation and sports medicine;

- ***have competencies.*** The developed program corresponds to ***OPP*** and is focused on formation of ***competences:***

- **general (LC) - LC1-3 OPP:**

ZK1. Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.

ZK2. Ability to apply knowledge in practical situations.

ZK3. Knowledge and understanding of the subject area and understanding of professional activity;

- **professional (FC) - FC18 OPP:**

FC18. Ability to keep medical records.

According to the educational-professional program, the expected **program learning outcomes (PRN)** include the skills of **PRN11, PRN13-18, PRN22, PRN25, PRN28, PRN30, PRN32, PRN33, PRN35, PRN41 OPP:**

**PRN11.** Collect data on patient complaints, medical history, life history ( including professional history), in a health care facility, its unit or at the patient's home, using the results of the interview with the patient, according to the standard scheme of the patient's survey. Under any circumstances (in a health care facility, its unit, at the patient's home , etc.), using knowledge about the person, his organs and systems, according to certain algorithms:

- collect information about the general condition of the patient (consciousness, constitution) and appearance (examination of the skin, subcutaneous fat , palpation of lymph nodes, thyroid and mammary glands); assess the psychomotor and physical development of the child;
- examine the condition of the cardiovascular system (examination and palpation of the heart and superficial vessels, determination of percussion boundaries of the heart and blood vessels, auscultation of the heart and blood vessels);
- examine the condition of the respiratory organs (examination of the chest and upper respiratory tract, chest palpation, percussion and lung auscultation );
- to examine the condition of the abdominal organs (examination of the abdomen, palpation and percussion intestines, stomach, liver, spleen, palpation of the pancreatic gland, kidneys, organs of small pelvis, finger study of the rectum);
- examine the condition of the musculoskeletal system (examination and palpation);
- examine the state of the nervous system;
- examine the condition of the genitourinary system;
- assess the state of intrauterine development of the fetus, according to calculation fetal mass and auscultation of his heartbeat.

**PRN13.** In the conditions of the health care institution, its subdivision and among the attached population:

- Be able to identify and record the leading clinical symptom or syndrome (according to list 1) by making an informed decision, using preliminary data of the patient's history, physical examination of the patient, knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms.

- To be able to establish the most probable or syndromic diagnosis of disease (for list 2) by adopting a reasoned decision by means of comparison with standards, using preliminary data patient history and examination data of the patient, based on the leading clinical symptom or syndrome, using the knowledge of a person of bodies and systems, adhering to the relevant ethical and legal norms.

**PRN14.** In the conditions of a health care institution, its subdivision:

- Assign laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, based on the most probable or syndromic diagnosis, according to standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms.

- Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient, knowledge about the person, his organs and systems, adhering to ethical and legal norms.

- Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient, the conclusions of differential diagnosis, knowledge of man, his organs and systems, adhering to relevant ethical and legal norms.

**PRN15.** Determine the required mode of work and rest at the treatment of the disease (2 on the list), in terms of health institution, at home and in the patient during medical evacuation in t. H. In field conditions, based on previous clinical diagnosis using knowledge of man, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

**PRN16.** To determine the necessary nutritional therapy in the treatment of disease (2 on the list), in terms of health care facility, home of the patient and on the stages of medical evacuation in t. H. In field conditions on the basis of previous clinical diagnosis using knowledge of the man, his bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

**PRN17.** To determine the nature of the treatment (conservative, surgical) disease (2 on the list), in terms of health care facility, home of the patient and on the stages of medical evacuation in t. H. In field conditions on the basis of previous clinical diagnosis using knowledge of human , its bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

Determine the principles of treatment of the disease (according to list 2), in a health care facility, at the patient's home and at the stages of medical evacuation, including field conditions, based on a preliminary clinical diagnosis, using knowledge about the person, his organs and systems , adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

**PRN18.** Establish a diagnosis (according to list 3) by making an informed decision and assessing the human condition, under any circumstances (at home, on the street, health care facility, its units), including in an emergency, in the field , in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

**PRN22.** Perform medical manipulations (according to list 5) in a medical institution, at home or at work on the basis of previous clinical diagnosis and / or indicators of the patient's condition, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making informed decisions and using standard techniques.

**PRN25.** To form, in the conditions of a health care institution, its division on production, using the generalized procedure of an estimation of a state of human health, knowledge of the person, its bodies and systems, adhering to the corresponding ethical and legal norms, by acceptance of the reasonable decision, among the fixed contingent of the population. :

- dispensary groups of patients;
- groups of healthy people subject to dispensary supervision (newborns, children, adolescents, pregnant women, representatives of professions that must undergo a mandatory dispensary examination).

**PRN28.** Organize secondary and tertiary prevention measures among the assigned population, using a generalized procedure for assessing human health (screening, preventive medical examination, seeking medical care), knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision, in a health care facility, in particular:

- to form groups of dispensary supervision;
- to organize medical and health-improving measures differentiated from the group of medical examination.

**PRN30.** Carry out in the conditions of a health care institution, its subdivision:

- detection and early diagnosis of infectious diseases (according to list2);
- primary anti-epidemic measures in the center of an infectious disease.

**PRN32.** In the health care facility, or at the patient's home on the basis of the obtained data on the patient's health, using standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making an informed decision:

- determine the tactics of examination and secondary prevention of patients subject to dispensary supervision;
- determine the tactics of examination and primary prevention of healthy individuals that subject to dispensary supervision;
- calculate and prescribe the necessary food for children in the first year of life.

**PRN33.** Determine the presence and degree of restrictions on life, type, degree and duration of disability with the issuance of relevant documents in a health care institution on the basis of data on the disease and its course, features of professional activity.

**PRN35.** On the territory of service according to standard methods of descriptive, analytical epidemiological and medical-statistical researches:

- to conduct screening for the detection of major non-communicable diseases;
  - evaluate in the dynamics and in comparison with the average static data indicators of disease, in fact including chronic non-communicable diseases, disability, mortality, integrated health indicators;
- identify risk factors for the occurrence and course of diseases; to form risk groups of the population.

**PRN41.** In the conditions of a health care institution or its subdivision according to standard methods:

- to select and use unified clinical protocols for the provision of medical care, developed on the basis of evidence-based medicine;
- take part in the development of local protocols for medical care;
- conduct quality control of medical care on the basis of statistical data and expert assessment of sociological studies of the use of indicators of structure, process and performance;
- identify factors that hinder the improvement of the quality and safety of medical care.

### 3. Curriculum

The educational process is organized according to the European Credit Transfer and Accumulation System (ECTS).

3.0 credits, 90 hours are allocated for the study of the discipline.

The curriculum of the discipline "Physical Rehabilitation and Sports Medicine" consists of two blocks:

**Block 1. General issues of physical rehabilitation, physical rehabilitation of patients with various diseases.**

**Block 2. Sports medicine.**

**Block 1. General issues of physical rehabilitation, physical rehabilitation of patients with various diseases**

*Topic 1. Physical rehabilitation as a science, its purpose, objectives, tools, principles, types, periods and stages.* Rehabilitation as a science, its purpose, tasks, means, principles, types, periods and stages. Carrying out of complex rehabilitation: medical, psychological, pedagogical, legal, state, public actions. Category of patients to be rehabilitated. The main task of rehabilitation. The main purpose of rehabilitation. Principles of rehabilitation. Medical rehabilitation. Seasonal rehabilitation. Stages of rehabilitation. Social or domestic rehabilitation.

*Topic 2. Therapeutic physical culture* Therapeutic physical culture. Mechanisms of therapeutic action of physical exercises. Means of medical physical culture. Classification of physical exercises. Forms of therapeutic physical culture. Periods of exercise therapy in rehabilitation programs. General requirements for the methodology of exercise classes. Motor modes. Dosage of physical activity.

*Topic 3. Therapeutic massage.* The essence of therapeutic massage. Basic massage techniques. Basic methods, types of basic massage. Auxiliary massage. Indications and contraindications to therapeutic massage. Methods of massage on different parts of the body. Rules for combining and combining exercise therapy, therapeutic massage and physiotherapy procedures.

*Topic 4. Basic principles of physical rehabilitation of patients with cardiovascular diseases.* Characteristics of cardiovascular diseases. Basic principles of rehabilitation of hypertension. Polyclinic stage of rehabilitation. Sanitary and resort stage of rehabilitation. Hospital stage of rehabilitation for myocardial infarction. Sanitary stage of rehabilitation. Polyclinic stage of rehabilitation. Remote stage of rehabilitation in myocardial infarction.

*Topic 5. Physical rehabilitation for respiratory diseases.*

Clinical and physiological substantiation of the use of means of physical rehabilitation. Physical rehabilitation for acute and chronic pneumonia. Physical rehabilitation for bronchitis. Physical rehabilitation for bronchial asthma. Physical rehabilitation of bronchiectasis and pulmonary emphysema.

*Topic 6. Physical rehabilitation in diseases of the digestive system and metabolism.* Physical rehabilitation in acute with normal and increased secretory function. Physical rehabilitation in acute with reduced secretion and achilles. Physical rehabilitation for peptic ulcer of the stomach and duodenum. Physical rehabilitation for obesity. Physical rehabilitation for diabetes.

*Topic 7. Basic principles of rehabilitation of patients with neurological profile.* Diseases and injuries of the peripheral nervous system. Physical rehabilitation for stroke. Physical rehabilitation for paralysis and paresis. Physical rehabilitation for lumbosacral radiculitis.

*Topic 8. Physical rehabilitation for surgical and traumatic diseases, posture deformities, scoliosis and flat feet.* Physical rehabilitation during surgical interventions on the abdominal organs. Physical rehabilitation during surgery on the chest. Physical rehabilitation for injuries. Physical rehabilitation for injuries of the ENT - tracheal organs. Physical rehabilitation of posture deformities. Physical rehabilitation for scoliosis. Physical rehabilitation for flat feet.

**Block 2. Sports medicine.**

*Topic 9. The subject and objectives of sports medicine.* The purpose of sports medicine. Tasks of sports medicine. The main sections of work with sports medicine. The purpose of the medical examination. Dispensary method of observation of athletes. Medical and physical training consultation. Medical control room. Medical and sports dispensary.



*Topic 10. Medical and pedagogical observation (LPS) in the process of training.* Tasks and forms of organization of LPS. Research methods in LPS. Functional tests in the conditions of LPS. Medical support of sports competitions. Anti-doping control. Sex control. Self-control over physical performance. Self-control in the process of training.

*Topic 11. Research methods in sports medicine.* The scope of hospital examination. Medical and sports analysis. Research of physical development. Sports anthropology. Muscular system research. Measurement of skin and fat folds. Calculation of body mass components. Study of the amplitude of movement in the extremities. Measurement of muscle strength. Plantography method.

*Topic 12. Tasks, means, organization and methods of medical control.* Morphofunctional characteristics of age features of the person. Hospital control over schoolchildren, young athletes, students, middle-aged and elderly people. Hospital control of women engaged in physical culture and sports. Assessment of health, physical development and fitness. Negative forms in the training process.

*Topic 13. General characteristics of physical activity of different intensity and organization.* Determination and assessment of overall physical performance and aerobic performance. Tolerance to physical activity. Quantitative assessment of the level of physical health. Compilation of individual sports and health regimes. Prepathogenic conditions and diseases that occur during irrational exercise and sports. Research and assessment of the functional state of the main body systems.

*Topic 14. Functional diagnostics in sports medicine.* Methods for assessing the functional state of the cardiovascular system. Methods for assessing the functional state of the respiratory system. Methodical approaches to functional diagnostics of the central nervous system. General diagnosis of blood.

*Topic 15. Medical control in certain groups of the population engaged in physical culture and sports.* Medical control in special medical groups. Medical control during classes with children. Medical control during health training with adults, the elderly and the elderly. Medical support of sports and health-improving measures.

### **The structure of the discipline**

<b>Name the topics</b>	<b>Number of hours</b>				
	<b>total</b>	<b>including:</b>			
		<b>lectures</b>	<b>practical training</b>	<b>individual lessons</b>	<b>individual work</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>Block 1. Physical rehabilitation</b>					
Topic 1. Physical rehabilitation as a science, purpose, tasks, content, principles, types, periods, stages	6	2	2	-	2
Topic 2. Therapeutic physical culture	6	2	2	-	2
Topic 3. Therapeutic massages	6	2	2	-	2

Topic 4. Basic principles of physical rehabilitation of patients with cardiovascular diseases	8	-	2	-	6
Topic 5. Physical rehabilitation for respiratory diseases	6	-	2	-	4
Topic 6. Physical rehabilitation in diseases of the digestive system and metabolism	8	-	2	-	6
Topic 7. Basic principles of rehabilitation of patients with neurological profile	6	-	2	-	4
Topic 8. Physical rehabilitation for surgical and traumatic diseases, posture deformities, scoliosis and flat feet	8	-	2	-	6
<b>Final control</b>					
<b>Together for block 1</b>	<b>54</b>	<b>6</b>	<b>16</b>	<b>-</b>	<b>32</b>
<b>Block 2. Sports medicine</b>					
Topic 9. The subject and objectives of sports medicine	6	2	2	-	2
Topic 10. Medical and pedagogical observation in the process of physical rehabilitation	6	2	2	-	2
Topic 11. Research methods in sports medicine	6	-	2	-	4
Topic 12. Tasks, content, organization and methods of medical control	4	-	2	-	2
Topic 13. General characteristics of physical activity of varying intensity on the organs	4	-	2	-	2
Topic 14. Functional diagnostics in sports medicine	6	-	2	-	4
Topic 15. Medical control in certain groups of the population engaged in physical culture and sports	4	-	2	-	2
<b>Final control</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Together for block 2</b>	<b>36</b>	<b>4</b>	<b>14</b>	<b>-</b>	<b>18</b>
<b>Total hours</b>	<b>90</b>	<b>10</b>	<b>30</b>	<b>-</b>	<b>50</b>

#### 4. The content of the discipline

##### 4.1. Lecture topics

<b>№ s / n</b>	<b>Name topics</b>	<b>Number of hours</b>
<b>Block 1. Physical rehabilitation</b>		
1	Physical rehabilitation as a science, purpose, tasks, content, principles, types, periods, stages	2
2	Therapeutic physical culture	2
3	Therapeutic massage	2
<b>Block 2. Sports medicine</b>		
4	Subject and tasks of sports medicine	2
5	Medical and pedagogical observation in the process of physical rehabilitation	2
	<b>Total number of lecture hours in the discipline</b>	<b>10</b>

#### 4.2. Topics of practical classes

<b>№ s / n</b>	<b>Topic</b>	<b>Number of hours</b>
<b>1</b>	<b>2</b>	<b>3</b>
<b>Block 1. Physical rehabilitation</b>		
1	Physical rehabilitation as a science, purpose, tasks, content, principles, types, periods, stages	2
2	Therapeutic physical rehabilitation	2
3	Therapeutic massage	2
4	Basic principles of physical rehabilitation of patients with cardiovascular diseases	2
5	Physical rehabilitation for respiratory diseases	2

6	Physical rehabilitation in diseases of the digestive and metabolic organs	2
7	Basic principles of rehabilitation of patients with neurological profile	2
8	Physical rehabilitation for surgical and traumatic diseases, posture deformities, scoliosis and flat feet	2
	<b>Final control</b>	
	<b>Together</b>	<b>16</b>
<b>Block 2. Sports medicine</b>		
9	Subject and tasks of sports medicine	2
10	Medical and pedagogical observation in the process of physical rehabilitation	2
11	Research methods in sports medicine	2
12	Tasks, content, organization and methods of medical control	2
13	General characteristics of physical activity of different intensity on the organs	2
14	Functional diagnostics in sports medicine	2
15	Medical control in certain groups of the population engaged in physical culture and sports	2
	<b>Final control</b>	
	<b>Together</b>	<b>14</b>
	<b>Total number of hours of practical classes in the discipline</b>	<b>30</b>

### 4.3. Individual work

The main types of independent work of students are:

- work with printed sources;
- independent training;
- independent watching of movies, TV programs, listening to radio programs, etc.

There are two types of tasks for independent work of students. Tasks of a theoretical nature, which are not thoroughly considered within the practical classes, are made for independent study by students. They are a supplement to the practical course. The student must study normative and literary sources and be ready to answer questions during practical classes and tests.

Tasks and tasks are of a practical nature.

### Topics for self-study

<b>№</b>	<b>Name topics</b>	<b>Number of hours</b>
<b>1</b>	<b>2</b>	<b>3</b>
1	Basics of physical rehabilitation. Tasks, methods, principles, types, periods and stages of physical rehabilitation	2

2	Basic principles of physical rehabilitation. The mechanism of therapeutic action of exercise. Means, forms of exercise therapy. Periods of exercise therapy in rehabilitation programs	2
3	Therapeutic massage. Techniques of therapeutic massage. Distribution and contraindications	2
4	Basic principles of physical rehabilitation of patients with cardiovascular diseases	6
5	Clinical - physiological substantiation of application of means of physical rehabilitation at diseases of respiratory organs	4
6	Physical rehabilitation in diseases of the digestive and metabolic organs	6
7	Basic principles of physical rehabilitation in diseases and injuries of the peripheral nervous system	4
8	Clinical and physiological substantiation of the use of physical rehabilitation in surgical and traumatic diseases	6
9	Sports medicine as a scientific discipline. Subject and tasks	2
10	Content and tasks of medical - pedagogical supervision in the process of physical rehabilitation	
11	Scientific achievements in sports medicine	4
12	Organization and methods of medical control in sports medicine	2
13	The effect of exercise of varying intensity on the body	2
14	Functional diagnostics in sports medicine	4
15	Content and tasks of medical control in groups of the population engaged in physical culture and sports	2
	<b>Together</b>	<b>50</b>

#### 4.4 . Ensuring the educational process

1. Textbooks.

2. Methodical development of practical classes.
3. Sets of tasks for complex tests.
4. Materials of lectures and practical classes.
5. Methodical recommendations for the organization of lectures, practical classes, individual research work, independent work of students.
6. Demonstration materials, instructions for the use of technical teaching aids (devices, equipment).

Form of final control of students' academic success: differentiated test (7th semester).

### **5. List of control questions for credit**

1. Tasks, purpose and principles of rehabilitation.
2. Types, periods and stages of rehabilitation.
3. Basic principles of physical rehabilitation.
4. The mechanism of therapeutic action of exercise.
5. Means of medical physical culture.
6. Forms of therapeutic physical culture.
7. Periods of exercise therapy in rehabilitation programs.
8. General requirements for methods of exercise therapy.
9. Motor modes.
10. Dosage of physical activity.
11. The effectiveness of exercise therapy.
12. Therapeutic massage.
13. Rules for combining and combining exercise therapy, therapeutic massage and physiotherapy procedures.
14. Principles of physical rehabilitation in hypertension.
15. Physical rehabilitation for myocardial infarction.
16. Physical rehabilitation for acute pneumonia.
17. Physical rehabilitation for chronic pneumonia.
18. Physical rehabilitation for bronchitis.
19. Physical rehabilitation for bronchial asthma.
20. Physical rehabilitation for bronchiectasis.
21. Physical rehabilitation for pulmonary emphysema.

22. Physical rehabilitation for gastritis with reduced and increased secretory function.
23. Physical rehabilitation for gastritis with reduced secretion and achilles.
24. Physical rehabilitation for peptic ulcer of the stomach and duodenum.
25. Physical rehabilitation for obesity.
26. Physical rehabilitation for diabetes.
27. Principles of rehabilitation for diseases and injuries of the peripheral nervous system.
28. Physical rehabilitation for stroke.
29. Physical rehabilitation for paralysis and paresis.
30. Physical rehabilitation for lumbosacral radiculitis.
31. Physical rehabilitation during surgical interventions on the abdominal organs.
32. Physical rehabilitation during surgery on the chest.
33. Physical rehabilitation for injuries.
34. Physical rehabilitation for maxillofacial trauma.
35. Physical rehabilitation for damage to the ENT organs.
36. Physical rehabilitation for eye injuries.
37. Principles of rehabilitation of pediatric patients.
38. Physical rehabilitation for posture defects.
39. Physical rehabilitation for scoliosis.
40. Physical rehabilitation for flat feet.
41. Physical rehabilitation in obstetrics and gynecology.
42. The purpose and objectives of sports medicine.
43. Research and evaluation of physical development.
44. Factors that impair the physical performance and health of athletes.
45. Influence of physical activity on the functional state of athletes.
46. Prevention and treatment of injuries and diseases of the musculoskeletal system in athletes.
47. Resumption of treatment of athletes.
48. Organization of pre-medical care for athletes.
49. The main forms of work in sports medicine.

50. Selection and orientation in sports. Acclimatization.
51. Medical association of persons engaged in physical culture and sports.
52. Medical examination of leading contingents of athletes.
53. Health, treatment and prevention measures in sports medicine.
54. Sanitary and hygienic supervision of places and conditions of sports and competitions.
55. Medical support of sports competitions and mass types of physical culture.
56. Prevention of sports injuries.
57. Medical and pedagogical observation (LPS) in the process of training.
58. Tasks and forms of organization of LPS.
59. Research methods in LPS.
60. Functional tests in the conditions of LPS.
61. Medical control at competitions (anti-doping, sex control, self-control).
62. Medical and physical training consultation.
63. Cabinet of medical control, tasks, organization.
64. Center for therapeutic physical culture and sports medicine, tasks, organization.
65. Medical examination of athletes, volume, tasks,
66. Sports anthropology, tasks, methods of study.
67. Study of body size in athletes by sports metrology.
68. Study of the muscular system in athletes.
69. Study of the skin in athletes.
70. Calculation of body weight components in athletes.
71. Study of the amplitude of movement in the extremities.
72. Measurement of muscle strength in sports medicine.
73. Sex research. Method of podometry. Methodoplantography.
74. Causes of diseases in athletes.
75. Classification of causes of diseases in athletes.
76. Contraindications to sports and physical education.



**"0" version of the test ticket**

Form №H - 5.05.

Black Sea National University  
named after Peter the Great  
Level of higher education - master  
Specialty: 222 "Medicine"  
Field of knowledge: 22 "Health care"  
Academic discipline  
**Physical rehabilitation and sports medicine**

Option № 0

1. Physical rehabilitation and sports medicine as a discipline. Purpose and objectives. - **The maximum number of points is 20.**
2. Therapeutic physical culture as a method of physical rehabilitation. - **The maximum number of points is 20.**
3. Therapeutic control. Definition, purpose, tasks, principles. - **Maximum number of points 20.**
4. Acclimatization (climatic and temporary). - **The maximum number of points is 20.**

*Approved at a meeting of the Department of Hygiene, Social Medicine and Public Health. Protocol № \_\_\_ dated \_\_\_\_\_ 2020*

Head of Department Ph.D., prof. Zyuzin VO

Examiner Ph.D., prof. Zyuzin VO

**Examples of tests and situational tasks**

1. *What is primary prevention:*
  - a) disease prevention;
  - b) prevention of recurrences;
  - c) prevention of exacerbation of the disease;
  - d) prevention of complications.
2. *Means of therapeutic function of culture :*
  - a) physical exercises, motor mode, therapeutic gymnastics;
  - b) massage, walking, natural environmental factors, motor modes;
  - c) physical exercises, motor modes, natural environmental factors;
  - d) sports games, massage, health course.
3. *Mechanism for massage:*
  - a) neuro-reflex;
  - b) humoral;

- c) mechanical;
  - d) stimulating.
4. *Tasks of rehabilitation:*
- a) restore the functions of organs or systems;
  - b) to adapt to everyday life;
  - c) resume professional activity;
  - d) dispensary supervision.
5. *Name the stages of rehabilitation:*
- a) preparatory;
  - b) hospital;
  - c) remote;
  - d) outpatient.

### **Problem № 1**

During the examination of adolescents for selection for children's sports school, it is necessary to assess the physical development of students.

Indicate which indices are used to assess physical development, how to calculate them and what are the indicators of the norm.

### **Problem № 2**

Patient C, 25 years old, with a fracture of the right humerus in the consolidation stage, with a circular living bandage on his arm was sent to the physiotherapy room of the family outpatient clinic. What exercises can be recommended to the patient and by what method classes should be conducted.

### **Problem № 3**

Patient C, aged 46, was sent to the day hospital of the family outpatient clinic for exercise therapy with a diagnosis of second-degree hypertension, with periodic crises.

Specify the tasks and means, forms and methods of exercise therapy, tactics of training.

## **6. Evaluation criteria and tools for diagnosing learning outcomes**

### **Control methods**

- Survey (testing of theoretical knowledge and practical skills).
- Test control.
- Writing a review of scientific literature (abstracts), performing individual tasks, their defense.

**Current control.** Testing in practical classes of theoretical knowledge and the acquisition of practical skills, as well as the results of independent work of students. Supervised by teachers according to the specific purpose of the curriculum. Assessment of the level of students' training is carried out by: interviewing students, solving and analyzing situational tasks and test tasks, interpreting the results of clinical-instrumental and clinical-laboratory research, monitoring the acquisition of practical skills. Conducted at each practical lesson.

**Intermediate control.** Checking the possibility of students using for clinical and diagnostic analysis of theoretical knowledge and practical skills on all topics studied, as well as the results of

independent work of students. Carried out in the last lesson on a topic or section by passing practical skills, solving situational problems and testing.

**The final control** is carried out upon completion of the study of all topics in the last lesson of the block.

In order to establish the results of training in the discipline is also the **final control in the form of a differentiated test**. Students are admitted to the test who have attended all lectures, classroom classes, completed full independent work and in the process of learning scored the number of points, not less than the minimum - **70 points**.

#### **Distribution of points received by students**

The maximum number of points that a student can receive for the current educational activity is **120**. Accordingly, the maximum number of points for each practical lesson is: 120 points: 15 classes = **8 points**. The minimum number of points is 70 points: 15 classes = **4.7 points**. A score below 4.7 points means "unsatisfactory", the topic is not credited and must be worked out in the prescribed manner.

In a differentiated test, a student can get a maximum of **80 points**. The credit is considered credited if the student scored at least **50 points**.

#### **Assessment of student performance**

<b>Block (current educational activity)</b>	<b>Maximum number of points</b>
Practical classes from the 1st to the 15th	8 points for each practical lesson
<b>Together for 15 practical classes</b>	<b>120</b>
<b>Differentiated offset</b>	<b>80</b>
<b>Together for the block and offset</b>	<b>200</b>

#### **Criteria for assessing knowledge**

**Score 7.1-8 points in practice and 71-80 points in diff. credit (A on the ECTS scale and 5 on the national scale)** the student's answer is evaluated if it demonstrates a deep knowledge of all theoretical principles and the ability to apply theoretical material for practical analysis and has no inaccuracies.

**Score 5.1-7 points in practice and 61-70 points in diff. credit (B and C on the ECTS scale and 4 on the national scale)** the answer is evaluated if it shows knowledge of all theoretical provisions, the ability to apply them in practice, but some fundamental inaccuracies are allowed.

**Score 4.7-5 points in practice and 50-60 points in diff. credit (D and E on the ECTS scale and 3 on the national scale)** the student's answer is evaluated provided that he knows the main theoretical provisions and can use them in practice.

## **7. Recommended sources of information**

### **7.1. Basic**

1. Constitution of Ukraine.
2. Fundamentals of health care legislation.
3. White MA Therapeutic exercise and massage: teaching method. allowance / M.A. White. - М.: Советский спорт, 2001. - 272 с.
4. Biryukov AA Therapeutic massage / AA Бирюков. - М.: Советский спорт, 2000. - 243 с.
5. Children's sports medicine / Ed. T.G. Авдеевой, Н.Н. Bahraha. - Ed. 4th, correct. and ext. - Rostov n / D: Phoenix, 2007. - 320 p.
6. Epifanov VA Therapeutic exercise and massage: textbook. / V.A. Epifanov. - М.: Издат. House GEOTARAMED, 2002. - 560 p.
7. Medical rehabilitation / Ed. V.A. Epifanova. - М.: Med. press-inform., 2005. - 378 p.
8. Mukhin VM Physical rehabilitation: a textbook / V.M. Mukhin - 3rd ed., Reworked. and add. - К.: Olympus. l-ra, 2009. - 488 p.
9. The advice of A.M. Fundamentals of physical rehabilitation: a textbook / A.M. Порада, O.B. Solodovnik, NE Prokorchuk. - К.: «Медицина», 2008. - 248 с.
10. Physical rehabilitation: textbook. / Under. common ed. S.N. Popova - [4th ed.] - Rostov n / D.: Phoenix, 2006. - 608 p.
11. Yazlovetsky VS Fundamentals of sports and therapeutic massage [textbook. aid.] / VS Язловецький, B.M. Mukhin, A.L. Turgak. - Kirovograd: RVV KDPU imeni Vinnichenko, 2005. - 336 p.

## **7.2. Additional**

1. Vasichkin VN Methods of therapeutic massage / VN Vasichkin. - СПб: Лань, 1997. - 126 с.
2. Gorbatyuk SO Physical rehabilitation for injuries of the musculoskeletal system [textbook. aid.] / S.O. Gorbatyuk. - Rivne: Volyn shores, 2008. - 200 p.
3. Gotovtsev PN Therapeutic physical training and massage / P.N. Готовцев, А.Д. Subbotin, VP Selevanov. - М.: Медицина, 1987. - 304 с.
4. Gusev GN Rehabilitation in neurology [textbook. aid.] / E.N. Гусев, А.Б. Gecht, W.B. Гаптов, Е.В. Tikhonyuk - М., 2000. - 368 p.
5. Zhuravleva AN Sports medicine and therapeutic physical education / A.N. Журавлева, Н.Д. Тра. - М.: Медицина, 1993. - 432 с.
6. Kogan OG Medical rehabilitation in neurologists and neurosurgery / OG Kogan, W.N. Naidin. - М.: Медицина, 1988. - 304 с.
7. Therapeutic physical education and sports medicine / Ed. V.V. Клапчука, Г.В. Thanks. - К.: "Health" 1995. - 312 p.
8. Therapeutic physical training in the system of medical rehabilitation / Under. ed. AR Kartelina, IP Лебедевой. - М.: Медицина, 1985. - 400 с.

9. Therapeutic physical training and medical control / Under. ed. V.A. Епифанова, Г.А. Апанасенко. - М.: Медицина, 1990. - 368 с.
10. Marchenko OK Physical rehabilitation of patients with injuries and diseases of the nervous system [textbook. aid.] / O.K. Marchenko. - К.: Olympus. l-ra, 2006. - 196 p.
11. Murza VP Physical rehabilitation [teaching. aid.] / VP Murza. - К.: Орлан, 2004. - 559 с.
12. Romanishin M.Ya. Physical rehabilitation in sports [textbook. aid.] / M.Ya. Romanishin. - Rivne: Volyn charms, 2007. - 368 p.
13. Chogovidze AV Medical control in physical education and sports / A.V. Chogovidze. - М.: Медицина, 1997. - 116 с.
14. Yazlovitsky VS Fundamentals of physical rehabilitation [textbook. aid.] / VS Yazlovitsky, GS Verich, VM Mukhin, A.L. Turgak. - Kirovograd: RVV KDPU imeni V. Vinnichenko, 2004. - 238 s.

### **7.3. Information resources on the Internet**

1. Official web-site of President of Ukraine <http://www.president.gov.ua>
2. Verkhovna Rada of Ukraine <http://www.rada.gov.ua>
3. Cabinet of Ministers <http://www.kmu.gov.ua/>
4. Ministry of Education and Science of Ukraine <http://www.mon.gov.ua>
5. National Defense Security Council of Ukraine <http://www.rnbo.gov.ua/>
6. Permanent Mission of Ukraine to the United Nations <http://ukrainen.org/>
7. North Atlantic Treaty Organization (NATO) <http://www.nato.int>
8. World Health Organization <http://www.who.int>
9. Educational programs of higher education institutions of Ukraine.

