

DANYLO HALYCKY LVIV NATIONAL MEDICAL UNIVERSITY

Department of Physical Training and Sports Medicine



APPROVED

first vice-rector on scientific and pedagogical work D.Halycky LNMU

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2019

WORKING PROGRAM OF EDUCATIONAL DISCIPLINE Physical Rehabilitation and Sports Medicine

Training of specialists of the second (master's) level of higher education in the field of knowledge 22 "Health care"
Specialty 222 "Medicine"

Discussed and approved
on meeting of department
Physical training and sports medicine
Protocol № 16 from «02» 04 .2019
Head of the department
commission

Approved
profiled methodical commission
on Humanities
Protocol № 5 from «04» 04 . 2019
Chairman of the methodical commission

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1. General section

Work program of discipline "Physical rehabilitation and sports medicine" prepared in accordance with the Standard of higher education in Ukraine (next-Standard) **second (master's degree)**.

Branch of knowledge **22 "Health Care"**

Speciality **222 "Medicine"**

Educational program **Master of medicine**

According to the curriculum, learning discipline "Physical rehabilitation, sports medicine" in medical schools is carried out on 4-year study. The program lasts 90 hours (3 credits), of which 30 hours of classroom, 10 hours of lectures and 50 hours of independent work (CPC).

The types of classes, according to the curriculum are:

- a) lectures;
- b) practical training;
- c) independent work of students (CPC).

Course description (abstract). Physical rehabilitation and sports medicine as a discipline is based on the study by students of human anatomy, physiology, pathophysiology, propedeutics of internal medicine; provides consistency and interrelation with medicine, surgery, traumatology and orthopedics, neurology, pediatrics, obstetrics and gynecology and other subjects of the curriculum, which involves the integration of teaching with these disciplines and the formation of skills, the use of knowledge and physical rehabilitation training and in professional activity; teaches effective and timely use of physical rehabilitation in complex rehabilitation of patients; provides prevention of pre-pathological and pathological conditions arising from irrational use of physical exercises; teaches to apply individual recreational and health modes of physical activity.

At the present stage, the discipline "Physical Rehabilitation and Sports Medicine" is becoming increasingly important for the quality comprehensive training of future doctors. Especially on issues related to the use of physical training and physical rehabilitation for the rapid recovery of health, preservation of quality of life and prevention or elimination of various complications in patients. The WHO Committee of Experts has determined that the purpose of rehabilitation is to prevent disability in the treatment of diseases and to assist the patient in achieving the maximum physical, mental, occupational, social and economic value to which he or she will be able within the existing disease.

The leading means of physical rehabilitation is therapeutic physical education (exercise therapy). Exercise therapy is the most active, purposeful and effective component of rehabilitation and prophylactic measures, which has no equivalent in its natural and biological influence and therefore plays a major role among non-medicated rehabilitation treatments. The underestimation and insufficient or untimely use of physical rehabilitation in the complex treatment of patients often leads to a significant increase in the time of their recovery, the emergence of severe complications, and, even, to a permanent disability. Exercise therapy and other physical factors should not be

additional means, but an integral part of complex treatment during all periods of rehabilitation. Very important is the early, timely appointment of physical rehabilitation, especially for diseases of the cardiovascular, respiratory, digestive, endocrine, nervous systems, as well as after injuries, surgery, pediatrics, obstetrics and gynecology. Special attention should be paid to the appointment of special physical exercises during conservative treatment, as well as to the stages of pre- and postoperative intervention, which are selectively combined with the strengthening and breathing exercises, means of hardening and preformed physical factors, taking into account: disorders), concomitant pathology, as well as taking into account the individual characteristics of the organism (age, sex, functional abilities of the basic systems of life support, level of physical fitness and tolerance to physical activity, state protection systems) at different stages of physical rehabilitation; Equally important is the use of physical training and rehabilitation tools for the prevention or functional treatment of diseases, especially with regard to postural disorders, scoliosis, osteochondrosis of the spine, varicose veins of the lower extremities, diseases of the circulatory system, respiratory system and other pathology. Therefore, qualitative preparation of a doctor is impossible without perfect mastery of the basics of physical rehabilitation and sports medicine.

Description of the curriculum on discipline

"Physical rehabilitation and sports medicine" for students of the Medical Faculty

Structure of the discipline	Number of credit hours, including:				Academic year Semester	View control
	Total hours	Auditorium		ISW		
		Lectures	Practical lessons		4 year study	
Module Physical Rehabilitation and Sports Medicine	3.0 credits ECTS / 90 год.	10	30	50	Fourth year of studies (VII-VIII semester)	Passed

2. PURPOSE AND OBJECTIVES OF THE STUDY FINAL TRAINING COURSE

The main purpose of discipline is to develop in students a holistic understanding of the possibilities, forms and methods of medical control in the health and sports training, as well as during physical rehabilitation, understanding the importance of timely application of physical culture for disease prevention, as well as in complex restorative treatment various profiles.

Final aim of the study discipline

1. Analyze and predict the effect of physical activity on the body of persons engaged in physical exercise according to medical control and prescribe appropriate rehabilitation measures for the recovery period.
2. Plan and implement physical rehabilitation in complex restorative treatment in inpatient, outpatient and health stages in diseases, injuries, damage and after surgery, as well as in obstetric practice and pediatrics.

3.2. The program of the course

The program material on the subject "Physical rehabilitation, sports medicine" consists of theoretical and practical sections.

The theoretical section is professionally applied nature and realized through lectures, explanations of educational material in the workshops, self-study of educational materials, preparation of individual tasks, participation in scientific student circle.

The practical section involves mastering binding practical skills and abilities.

Physical rehabilitation, sports medicine

1. Sports Medicine

Specific objectives:

1. Have an understanding of sports medicine to know its purpose and basic tasks.
2. Understand the importance of medical (drug) control in recreational and sports training.
3. To have a comprehensive medical examination procedure of those engaged in physical activity.
4. Analyze data with a comprehensive medical examination, physical development, functional ability and health of persons surveyed.
5. Do medicinal conclusion from a survey, to address issues of access to sports and physical education, to divide the medical group.
6. Giving advice on choosing the optimal type of exercise, recreation and health and drilling motor regimes depending on the physical condition.
7. To interpret changes in key physiological systems under the influence of physical activity of varying intensity.
8. Identify external features of different degrees of fatigue when performing exercise.
9. Know prepathological causes or conditions, and risk factors for sudden death in wasteful physical education and sports.
10. To be able to diagnose acute and chronic physical stress, as well as other diseases and injuries resulting from inadequate physical activity; own methods of first aid and treatment of acute and chronic physical strain.
11. Giving advice biomedical and other means of preventing overload and recovery of physical performance in recreational training in modern sport.

2. Physical rehabilitation

Specific objectives:

1. To interpret the term "rehabilitation". Know the purpose, objectives and guidelines (aspects) rehabilitation.
2. Have an understanding of "physical rehabilitation" (FR), define its purpose, objectives, means and basic methodological principles.
3. Understand the importance of PR for faster recovery, impaired functions and capacity of patients, improving their quality of life, prevent or eliminate the consequences of the pathological process.
4. Know the definition and characteristics of the method of physical therapy (exercise) as the primary means of PR to explain the mechanisms of action of therapeutic exercise and massage the body, to understand the basic principles of selection and dosage physical activity.
5. To analyze the indications and contraindications for use of PR in patients of different profile.
6. Know the best modes of physical activity to assign patients to inpatient, outpatient and sanatorium stage of rehabilitation, their objectives and content depending on the period FR.
7. Know the basic objectives, features some exercise techniques and special exercises for the pathology of the internal organs, diseases and injuries of the nervous system injuries and diseases of the musculoskeletal system, during surgery and in obstetric practice and pediatrics.
8. Perform selection of the most effective means of FR considering clinical course of disease (stage, stage, degree of functional disorders), comorbidity, and according to the individual characteristics of the body: age, gender, functional ability, level of physical fitness and tolerance to physical exercise.
9. To be able to give patients recommendations on various profiles independent exercise as directed by your doctor explaining features of self-control in the classroom.
10. To be able to evaluate the effectiveness of physical rehabilitation in the process of rehabilitation.

3.3. Structure of educational discipline "Physical Rehabilitation and Sports Medicine"

№	Topic	Lectures	Practice	ISW
1.	Modern ideas about sport medicine. Concept about medical control. Modern methods of inspection of athletes and sportsmen. An estimation of functional capabilities of organism of man by means of functional tests.	1	2	50
2.	Research and evaluation of the functional state of the body through functional tests. Medical conclusion.	1	2	
3.	Determination and estimation of general physical capacity and aerobic productivity. Tolerance is to physical activities.	1	2	
4.	The Pre-pathological states and diseases are at the inefficient engaging in a physical culture and sport.	1	2	

5.	Recovery and stimulation during wellness and sports training.	0	2	
6.	General bases of physical rehabilitation. Medical physical education is in the system of physical rehabilitation. Psychological rehabilitation and social work with persons who became disabled during military service and other victims of hostilities.	1	4	
7.	The basics of therapeutic massage.	0	2	
8.	Physical rehabilitation clinic of internal diseases.	1	4	
9.	Physical rehabilitation in diseases and injuries of the nervous system.	1	2	
10.	Physical rehabilitation in surgery, traumatology and orthopedics.	1	4	
11.	Features of the application of physical rehabilitation in obstetrics and gynecology.	1	2	
12.	Features of the physical education of infants. Physical rehabilitation of sick infants.	1	2	
TOTAL HOURS – 90 / 3,0 CREDITS ECTS		10	30	50
Final control				Credit

3.4. Thematic plan of lectures

№	Topic	Hours
1.	Modern ideas about sport medicine. Concept about medical control. Modern methods of inspection of athletes and sportsmen. An estimation of functional capabilities of organism of man by means of functional tests.	1
2.	Research and evaluation of physical and functional abilities of the body.	1
3.	Physical performance and its relationship with health indicators.	1
4.	Prepathological conditions and diseases in irrational physical exercise. The concept of doping.	1
5.	The general principles of physical rehabilitation. Exercise as a primary means of PR.	1
6.	Physical rehabilitation clinic in internal medicine.	1
7.	Physical rehabilitation for diseases and injuries of the nervous system.	1
8.	Physical rehabilitation in surgery, traumatology and orthopedics.	1
9.	Physical therapy in obstetric practice.	1
10.	Features of Physical Education babies. Physical rehabilitation sick young children.	1
Total hours:		10

3.5. Thematic plan of practical employments

№	Topic	Hours
1.	Medical control during exercise. Methodology of complex medical inspection. Determination and estimation of physical development of man.	2
2.	Research and evaluation of the functional state of the body through functional tests.	2
3.	Determination and estimation of general physical capacity and aerobic productivity. Tolerance is to physical activities.	2
4.	The Pre-pathological states and diseases are at the inefficient engaging in a physical culture and sport. A concept about a stimulant.	2
5.	. Facilities of renewal and stimulation are at the health and sporting training	2
6.	The general principles of physical rehabilitation. Psychological rehabilitation and social work with persons who became disabled during military service and other persons affected by the hostilities.	4
7.	Basics of therapeutic massage.	2
8.	Physical rehabilitation clinic of internal diseases.	4
9.	Physical rehabilitation in diseases and injuries of the nervous system.	2
10.	Physical rehabilitation in surgery, traumatology and orthopedics.	4
11.	Features of the application of physical rehabilitation in obstetrics and gynecology.	2
12.	Features of the physical education of infants. Physical rehabilitation of sick infants.	2
Hours:		30

Types of independent work of students (IWS)

№	Topic	Hours
1.	Preparation for practice; Science and instructional materials; formation of practical skills.	5
2.	Writing drug-control card and athlete athlete (form number 061 / o or №162 / O) card and a patient being treated in the office LFK, department of rehabilitation or rehabilitation center (the form №42 / o).	5
3.	Features of the medical monitoring of children, adolescents during exercise. Quantitative assessment of physical health. The choice of individual motor mode.	4
4.	General characteristics of the influence of physical activity of varying intensity on the body.	4
5	Medical-pedagogical control during exercise. The sudden death during exercise. The concept of doping in sport.	4
6.	Current approaches to physical rehabilitation of patients with myocardial infarction.	4

7.	Features of physical rehabilitation in diabetes, obesity, gout.	4
8.	Features of physical rehabilitation for asthma, pulmonary tuberculosis.	4
9.	Features of methods of physical rehabilitation in the preoperative and postoperative periods during surgery for chest and abdominal cavity.	4
10.	Modern means of physical rehabilitation radiculitis, osteochondrosis.	4
11.	Features contemporary mind-body training women with normal pregnancy.	4
12.	Prevention and correction of posture and flatfoot in children. Alternative means of physical rehabilitation of children with cerebral palsy.	4
Hours:		50

Formation of a healthy way of life today.

1. Actual problems of optimization of body weight in human terms today.
2. Features of the medical monitoring of children, adolescents and women in the exercise.
3. Tempering as an effective means to strengthen and restore health.
4. The sudden death during exercise. The problems of doping in sport.
5. Current approaches to physical rehabilitation of patients with myocardial infarction.
6. Features of physical rehabilitation for pneumonia, pleurisy, asthma.
7. Features of physical rehabilitation in stroke.
8. Features of modern psycho-physical preparation of women with normal pregnancy.
9. Modern physical rehabilitation in spinal osteochondrosis.
10. Prevention and correction of posture and flatfoot in children.
11. Alternative means of physical rehabilitation of children with cerebral palsy.

List theoretical program matters submitted to final module control

Physical rehabilitation, sports medicine

Sports Medicine

1. Definition of Sports Medicine as a clinical discipline, its main aim, objectives and values in modern medical practice.
2. Current issues of optimizing human motor activity at the present stage, the types of physical activity and their effects on the body.
3. The concept of medical (drug) control during exercise, its main task.
4. Methods of comprehensive medical examination of athletes and sportsmen, types of medical examinations.
5. Main Sections comprehensive medical examination, especially the collecting history (general and sport) and exam organs and systems, physiological characteristics of the circulatory system in trained individuals.

6. Physical development rights, factors affecting it and the features that characterize it.
7. Methods for determination of physical development (somatoskopiya and anthropometry).
8. Methods of assessment of physical development (standards, anthropological profile codes, etc.). Recommendations for harmonization or correct physical development depending on its features.
9. The concept of functional tests and their implications in the functional diagnosis. The main tasks of the functional studies.
10. Types of functional tests, depending on the factors affecting.
11. Functional tests of breath (woodwork Ghencea-Sabraze), loading and breathing tests, and methods of evaluation.
12. Functional tests with changes in body position in space (orthostatic, klinostatychna), and methods of evaluation.
13. Classification of functional exercise testing.
14. Functional Exercise testing of recovery, their features and settings in which they are measured.
15. Methods of functional test Kushelevskoho Martin (20 sit-ups in 30 seconds.), Especially the calculation of heart rate during the test, evaluation tests.
16. Physiological changes in hemodynamics during exercise.
17. Types of circulatory system response to standard exercise and their characteristics.
18. Problems of diagnosis of physical health at the present stage, the concept of "amount" of physical health.
19. "adaptation" (VP Kaznacheyeva and RM Baevsky) and "energy" (GL Apanasenko) determine the number of health concepts.
20. rapid assessment of physical health with preventive examinations (by GL Apanasenko, 1992). The concept of a "safe level of health."
21. The concept of "human biological age" method of determining the biological age and assessment of biological aging rate (by VP Voytenko, 1991).
22. Analysis of complex medical examination. The medical report.
23. Access to physical education (physical education), the main criteria for allocating those involved in the medical group.

24. Admission to sports, determine the optimal type of sports training, contraindications to exercise, age limits for admission of children to the sport.
25. Principles for admission to sports persons with boundary conditions (clinical and electrocardiographic syndrome peredzbudzhennya ventricular, peredhipertonichnymy conditions, connective tissue dysplasia syndrome, etc..).
26. medical supervision of persons of different sexes and ages (children, adolescents, women, the elderly).
27. Individual motor modes while physical training and sports. Megeve and training heart rate depending on the functional and physical condition.
28. The estimated recovery times after exercise of diseases, injuries and damage.
29. Functional tests on force (load tests). Indications and contraindications for the purpose of stress tests and conditions that require special attention during load testing.
30. Terms of load testing.

31. Types and loads the initial value, depending on the individual characteristics of the subject (age, sex, physical fitness, health status).
32. The concept of overall physical performance, aerobic capacity and tolerance to physical exercise.
33. Clinical and functional characteristics threshold of tolerance to physical exercise.
34. Direct and indirect methods for determining physical working capacity and aerobic performance. Submaximal test PWC170, method of calculation and principles of physical capacity in the performance test PWC170 (veloerhometrychnomu and steperhometrychnomu versions).
35. Determination of maximum oxygen consumption (MSCs) Calculation of the MSK nomogram for Astranda and largest PWC170.
36. Tests Navakki, Ruf'ye, Cooper, methods of their implementation and evaluation of test results.
37. classes of physical condition. How physical performance of health indicators.
38. The concept of fatigue, fatigue and acute and chronic strain during exercise.
39. The main causes of prepathological and pathological conditions, diseases and injuries during physical training and sports.
40. The concept of "physiological" and "pathological" athletic heart.
41. Overexertion nervous system (overtraining) during physical training and sports, causes, types and stages of overtraining.
42. Acute pathological conditions that occur during exercise (dizziness, gravitational shock, orthostatic collapse, hypoglycemic state, spasm of cerebral vessels, hypnotic sleep, retrograde amnesia, etc.), Causes, diagnosis, emergency care.
43. Chronic physical stress of the circulatory system that develops as a result of inadequate physical activity (stress cardiomyopathy, arrhythmia, hyper- and hypotonic conditions, etc.), Diagnosis, treatment and prevention.
44. Chronic lesions and strain of the musculoskeletal system during exercise (myositis, tendinitis, tenosynovitis, osteoporosis, etc.)..
45. Diseases of the nervous and endocrine system, digestive system, urinary organs and other organs and systems in the physical education and sports.
46. recurring acute manifestations of physical strain (hepatic pain, dyspeptic, proteinurichnyy, hematurichnyy and muscle-pain syndromes).
47. The risk of sudden death during physical training and sports.
48. The concept of doping their types. Acute poisoning and consequences of prolonged use dope. Anabolic syndrome. Organization of doping control.
49. The concept of medical-pedagogical observation, their purpose and objectives.
50. and the organization and methods of exercise.
51. Sanitation requirements for the maintenance of individual sports (indoor and outdoor) facilities, sporting and recreational training, competition, sport events.
52. Methods of teaching medical supervision, determine the total motor density and the training classes, creation of physiological curve classes.
53. External features of different degrees of fatigue during exercise, their assessment.

54. Functional tests with repeated and additional loads in the medical and pedagogical observations estimate of the magnitude of influence of training load by the method of trend analysis.
55. Analysis of medical teaching observations.
56. Physiological mechanisms of recovery. Classification of renewable resources.
57. Biomedical recovery tools and stimulation of physical performance.
58. Pedagogical and psychological recovery tools and stimulation of physical performance.
59. Pharmacological means of preventing fatigue and recovery of sports performance.
60. Application of tempering as a means of disease prevention.

Physical Rehabilitation.

- 61 Determination of physical rehabilitation (FR), its general principles, periods and phases. Active, passive and psychological ways FR.
- 62 Therapeutic physical training (ET) as the primary means of FS, especially the method of exercise, primary and secondary means of exercise, forms, methods and methodological principles of exercise.
- 63 general indications and contraindications for appointment of exercise.
- 64 The mechanisms of therapeutic action of exercise. Classification of exercise. Basic principles of selection and dosage of exercise.
- 65 Modes of motor activity inpatient, out-patient and sanatorium stage of rehabilitation treatment, their objectives and content depending on the period of exercise.
- 66 Features charting and oriented complexes hygienic and therapeutic exercises.
- 67 Physical therapy based on tolerance to physical exercise.
- 68 The definition of massage and its species. Mechanisms of therapeutic effects of massage on the body. The basic techniques of massage.
- 69 Indications and contraindications for the purpose of therapeutic massage.
- 70 Accounting course effectiveness of physical rehabilitation.
- 71 Indications and contraindications for the purpose of physical rehabilitation in diseases of the circulatory system.
- 72 Assessment of motor capacity and determination of functional class in patients with coronary artery disease. The choice of the amount of motor activity, forms and methods of exercise therapy in patients with coronary artery disease at different stages of physical rehabilitation.
- 73 Objectives and methods of RF features in acute myocardial infarction with a list of specific exercises.
- 74 Objectives and methods of RF features of ischemic heart disease to the list of special exercises.
- 75 Objectives and features of the methodology FY hypertension, hypotension and autonomic dysfunction with a list of specific exercises.
- 76 Indications and contraindications for the purpose of physical rehabilitation in bronchopulmonary pathology.
- 77 Objectives and methods of RF features of acute bronchitis, pneumonia and pleurisy with a list of specific exercises.

- 78 Objectives and methods of RF features in chronic bronchitis, asthma, emphysema, bronchiectasis, pulmonary tuberculosis with a list of specific exercises.
- 79 Indications and contraindications for appointment of DF in diseases of the digestive system.
- 80 Tasks and features RF techniques in chronic gastritis, gastric ulcer and duodenal ulcers, diseases of the biliary tract and intestines, splanhoptozi a list of special exercises.
- 81 Indications and contraindications for appointment of RF in renal disease and metabolic disorders.
- 82 Tasks and features techniques FY kidney disease and metabolic disorders (obesity, diabetes, gout).
- 83 Indications and contraindications to the use of physical rehabilitation in diseases, injuries and injuries of the central nervous system.
- 84 Objectives and features of the methodology FY acute cerebrovascular accident (stroke), treatment provision, passive and active special exercises and massage in spastic paralysis.
- 85 Features of the application DF in closed and open brain injury.
- 86 Modern technology and innovative means of physical rehabilitation of children with cerebral palsy.
- 87 Indications and contraindications to the use of physical rehabilitation in diseases and injuries of the peripheral nervous system.
- 88 Objectives and methods of RF features in traumatic spinal cord injury. Treatment provisions, passive and active special exercises and massage with flaccid paralysis.
- 89 Features of restoration and compensatory therapy in neuritis of the facial nerve, special exercise.
- 90 Some methods physiotherapist neuritis at the elbow and radial nerves, osteochondrosis, radiculitis.
- 91 Indications and contraindications for the purpose of physical rehabilitation in surgery.
- 92 Objectives and features of the methodology in FY preoperative and postoperative periods in surgical interventions on the abdominal organs, depending on the motor mode and postoperative course with a list of specific exercises.
- 93 Objectives and features of the methodology in FY preoperative and postoperative periods in surgical interventions on the organs of the thoracic cavity, depending on the motor mode and postoperative course with a list of specific exercises.
- 94 Indications and contraindications for the use of FR for injuries of the musculoskeletal system.
- 95 Objectives and methods of physical rehabilitation, depending on the period (immobilization, postimmobilizatsiynnyy, recovery) and treatment. Justification of the choice of means and forms of RF.
- 96 Features specific exercise techniques in diaphyseal fractures of the upper and lower limbs, intra-articular fractures and dislocations, compression fractures of the spine and pelvis fractures.
- 97 Evaluating the effectiveness of physical rehabilitation in trauma patients.

- 98 Indications and contraindications for the use of funds in FY orthopedic disorders in children.
- 99 Features techniques and specific exercises with flat feet, posture and scoliosis depending on the degree.
- 100 Physiological changes in a woman's body during pregnancy.
- 101 Main tasks and features mind-body training methods women with normal pregnancy according to trimester.
- 102 Features method of application of exercise in childbirth and the postnatal period. as well as operative delivery.
- 103 Main task features exercise techniques and specific exercises in the wrong position and breech fetus.
- 104 Indications and contraindications for the purpose of physical rehabilitation in gynecological practice.
- 105 Challenges and features DF for chronic inflammatory diseases of female genital anomalies provisions uterus, disorders of menstrual function and functional incontinence.
- Features 106 physical education healthy babies.
- 107 types of physical exercises used in physical education healthy babies.
- 108 General indications and contraindications for the use of exercise therapy in young children.
- 109 Physiological effects of massage on the body of children, indications and contraindications for its use.
- 110 Basic methodological principles of application of RF in pediatrics.
- 111 Problems and features of the methodology of medical gymnastics and massage in infants with acute pneumonia.
- 112 Problems and features of the methodology physiotherapist in infants with rickets, malnutrition. Congenital muscular torticollis, congenital hip dislocation.

8. LIST OF PRACTICAL SKILLS AND ABILITIES

List of practical skills in sports medicine:

- ☛ master the technique of complex medical examination of persons engaged in physical culture and sports,
- ☛ decide on access to exercise and to select the most optimal form;
- ☛ conduct somatoskopiyu and somatometry, based on analysis of the data to assess the physical development of recommendations for its correction in the training and improving processes;

- ☛ conduct functional tests to determine the functional state of circulatory, respiratory and autonomic nervous system, and based on the analysis of the indicators give an overall assessment of the functional ability of the body with recommendations for their koretsiyi during exercise;
- ☛ identify and assess physical performance and tolerance to physical exercise using stress tests with providing appropriate recommendations for the optimal motor mode according to age, gender and other personal characteristics of the human body;

- ☛ identify and assess the level of physical health (physical condition) rights and make recommendations for its improvement by means of physical culture;
- ☛ diagnose early signs of fatigue, acute and chronic stress, as well as other diseases, sports injuries and damages arising from irrational physical culture and sports; prescribe the means of treatment and prevention;
- ☛ conduct medical-pedagogical monitoring during exercise;
- ☛ analyze and evaluate the conditions of the exercise, and adequate training loads functionality of the body at different stages of training and improving the process for further optimization;
- ☛ prescribe the means and methods of restoration of functional capacity, physical performance and health during physical education and sport;
- ☛ provide advice on important issues concerning the application of physical culture to maintain and promote health;
- ☛ maintain sanitary-educational work among the population on healthy lifestyles, improving the role of physical culture and hardening.

List of practical skills in physical rehabilitation:

- ☛ carry out inspection, examination and testing of functionality and motor function in patients with different pathologies for selection and appointment of timely treatment in adequate physical rehabilitation;
- ☛ based on the survey results to prescribe the optimal mode of motor activity, passive and active exercise, other means of physical rehabilitation (massage, training, etc.) patients, depending on the nature of disease, stage of disease, individual characteristics (gender, age, physical fitness functional abilities), and the degree of functional impairment at different stages of physical rehabilitation;
- ☛ identify potential complications and temporary contraindications in physical rehabilitation;
- ☛ implement differentiated assignment means and forms of physical rehabilitation, and justify the choice of specific exercises and their dosage to patients with disorders of the circulatory system, diseases of the respiratory, digestive system and metabolism;
- ☛ implement differentiated assignment means and forms of physical rehabilitation, choose the most optimal treatment position, passive and active exercises, massage techniques to patients with diseases and injuries of the nervous system at different stages of treatment, depending on the degree of motor function;
- ☛ implement differentiated assignment means and forms of physical rehabilitation patients in the preoperative and postoperative periods of treatment, justify the choice of special exercises and their dosage to patients after surgery on the organs of the chest and abdomen;
- ☛ implement differentiated assignment means and forms of physical rehabilitation of patients with injuries of the musculoskeletal system, depending on the location of injury and rehabilitation period, justify the choice of special exercises, their doses and lightweight assumptions for their implementation;
- ☛ implement differentiated forms and appointment of improving physical training or physical rehabilitation during pregnancy (normal, complicated), childbirth, the postpartum period; as well as various gynecological diseases;

- ☛ implement differentiated assignment means and forms of physical rehabilitation in some diseases in infants, justify the choice of medical provisions, special exercises and their dosage depending on the nature of disease and the degree of movement disorders;
- ☛ conduct repeated evaluation of patients to determine the adequacy of physical activities and evaluation tools used in physical rehabilitation, make appropriate adjustments;
- ☛ provide advice on current issues related to the use of physical rehabilitation for secondary prevention of diseases, prevention of early or late complications, quality of life of patients.

4. Distribution points that get students

Current control is performed during the training sessions and aims at checking mastering educational material. The form of the current control during the classes defined working curriculum subjects.

Evaluation of current educational activity. In evaluating the mastering of each topic for current educational activity the student score for the 4-point scale on the basis of approved evaluation criteria for the relevant discipline. This takes into account all types of work, provided the curriculum. The student must obtain an assessment of each topic. Forms assessment of current educational activity should be standardized and include control of theoretical and practical training. Exhibited the traditional assessment scale are converted into points.

The maximum number of points that a student can collect for current educational activity for credit discipline "Physical Rehabilitation and Sports Medicine" is 200 points.

The minimum number of points that a student must collect for current educational activity for enrollment courses is 120 points.

Calculating the number of points is based on student evaluations received by traditional scale while learning subjects during the semester, by calculating the arithmetic (SA), rounded to two decimal places. The resulting value is converted into points by multi-scale as follows:

$$X = CA \times 200 / 5$$

For convenience, a table conversion 200 - point scale:

Table 1

Conversion of the average score for current activity in multimark scale for courses, culminating her credits (differentiated credit)

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.45	178	3.92	157	3.37	135
4.97	199	4.42	177	3.89	156	3.35	134
4.95	198	4.4	176	3.87	155	3.32	133
4.92	197	4.37	175	3.84	154	3.3	132
4.9	196	4.35	174	3.82	153	3.27	131

4.87	195	4.32	173	3.79	152	3.25	130
4.85	194	4.3	172	3.77	151	3.22	129
4.82	193	4.27	171	3.74	150	3.2	128
4.8	192	4.24	170	3.72	149	3.17	127
4.77	191	4.22	169	3.7	148	3.15	126
4.75	190	4.19	168	3.67	147	3.12	125
4.72	189	4.17	167	3.65	146	3.1	124
4.7	188	4.14	166	3.62	145	3.07	123
4.67	187	4.12	165	3.57	143	3.02	121
4.65	186	4.09	164	3.55	142	3	120
4.62	185	4.07	163	3.52	141	less 3	not enough
4.6	184	4.04	162	3.5	140		
4.57	183	4.02	161	3.47	139		
4.52	181	3.99	160	3.45	138		
4.5	180	3.97	159	3.42	137		
4.47	179	3.94	158	3.4	136		

Independent work of students is evaluated during the current control of theme on the appropriate lesson. Mastering of themes which dart out only on independent work is controlled only at the final control.

Final control is carried out to assess learning outcomes at a particular educational qualification level and its individual stages completed national scale and scale ECTS. Final control includes control and certification semester student. Semester control is carried out in the form of offset (differentiated credit) in the amount of educational material defined work program and in the terms established working curriculum, individual curriculum the student.

Semester differentiated offset - a form of final control, which is to assess the mastering of educational material exclusively on the basis of the performance of all types of educational works provided work study program. Semester (differentiated) test results exhibited by current control.

5. Determination of the number of points that a student collected from discipline

Evaluation of discipline, a form of final control which is differentiated credit is based on the current training and calculated in points, according to Table 1.

Evaluation of discipline, a form of which is the final control test is based on current educational activities and expressed dvobalnoyu scale "Passed" or "not passed". To enroll a student must obtain for current learning activity score of at least 60% of the maximum amount of points in the discipline (120 points).

Points Converted regardless of discipline both in scale ECTS, and a 4-point scale.

Score scale ECTS 4-point scale not converted and vice versa.

Scores students studying for another degree, to the number of points gained in the discipline ranked on a scale ECTS as follows:

Table 2

Estimate ECTS	Statistical index
A	Best 10% of students
B	Next 25% of students
C	Next 30 % of students
D	Next 25% of students
E	Last 10% of students

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