PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of internal medicine with a course in psychiatry and narcology

WORKING PROGRAM EDUCATIONAL DISCIPLINE

" Physical rehabilitation, sports medicine "

LEVEL OF HIGHER EDUCATION Second (master's) level
DEGREE OF HIGHER EDUCATION Master
FIELD OF KNOWLEDGE 22 Health care
SPECIALTY 22 2 Medicine

Reviewed and approved
at the meeting of the Academic Council
Protocol No. 1, dated August 31, 2018

Kiev 2018

The work program in the discipline " **Physical rehabilitation, sports medicine** " for the training of applicants for a second (master's) higher education level of higher education in specialty 22 2 Medicine .

Description of the academic discipline

<table>
<tr><td rowspan="2">Name of indicators</td><td rowspan="2">Field of knowledge, direction of training, educational qualification level</td><td>Characteristic academic discipline</td></tr>
<tr><td>Full-time teaching</td></tr>
<tr><td rowspan="2">Number of credits 3,0</td><td>Branch of knowledge
22 "Health care"</td><td rowspan="2">Full course</td></tr>
<tr><td>Specialty :
222 "Medicine"</td></tr>
<tr><td>Modules 2</td><td rowspan="5">Qualifications of the educational "Master of Medicine"</td><td>A year of training</td></tr>
<tr><td></td><td>IV</td></tr>
<tr><td>ECTS credits - 3.0</td><td>Semester</td></tr>
<tr><td>the total number of 90 hours</td><td>VII, VIII</td></tr>
<tr><td></td><td>Lectures</td></tr>
<tr><td rowspan="10"></td><td rowspan="10">Form of education:
daytime

Type of discipline:
mandatory</td><td>10 hours</td></tr>
<tr><td>Practical</td></tr>
<tr><td>30 hours</td></tr>
<tr><td>Laboratory</td></tr>
<tr><td>-</td></tr>
<tr><td>Individual work</td></tr>
<tr><td>50 hours</td></tr>
<tr><td>Type of control:</td></tr>
<tr><td>Diff. settlement</td></tr>
</table>

CONTENT

I. EXPLANATORY NOTE

The curriculum of the educational discipline " Physical rehabilitation, sports medicine " is compiled in accordance with the educational and professional training program "Master" in the field of knowledge 22 " Health Care " specialty 222 "Medicine". The subject of study of the academic discipline is the generalization of the theoretical and methodological foundations of the rational use of therapeutic physical culture and other physical factors in patients of various profiles to restore their health, functional state, work capacity and quality of life, which have been disturbed due to diseases, injuries or other injuries .

Interdisciplinary connections:

Physical rehabilitation, sports medicine as an educational discipline:

a) is based on students' study of medical biology, biological and bioorganic chemistry, histology, physiology and pathological physiology, human anatomy and pathomorphology and is integrated with these disciplines ;

b) is based on the study by students of propaedeutic disciplines of therapeutic profile, pharmacology, radiology and is integrated with these disciplines;

c) integrates with other clinical disciplines (internal medicine, surgery, oncology, psychiatry, medical genetics, etc.);

The curriculum of the academic discipline consists of the following sections:

Chapter 1. Determination of the level of physical development and functional capabilities of a person.

Units:

1. Introduction. The main tasks and content of medical control. Methods of comprehensive research for assessment of physical development and functional capabilities of a person.
2 . Determination and evaluation of a person's general physical capacity, aerobic productivity and tolerance to physical exertion. Admission to health and sports training. Medical and pedagogical control in the process of physical exercises.

Chapter 2. Basics of physical rehabilitation.

Units:

3. General basics of physical rehabilitation.
4. Physical rehabilitation of cardiac patients.
5. Physical rehabilitation of patients with pulmonological , gastroenterological, and endocrinological profiles.
6 . Physical rehabilitation of patients with surgical and trauma profiles.
7 . Physical rehabilitation of patients with a neurological profile.
8 . Physical rehabilitation in pediatrics.
9 . Physical rehabilitation in obstetrics and gynecology.

1. The purpose and tasks of the educational discipline

1.1. The purpose of teaching the educational discipline " Physical rehabilitation, sports medicine " is:
study of the basics of physical rehabilitation for diseases of internal organs, the principles of complex application of methods and means of restorative treatment at all stages of the rehabilitation program both in inpatient conditions and in the conditions of sanatorium-resort and treatment-prophylactic institutions.
1.2. The main tasks of studying the discipline " Physical rehabilitation, sports medicine " are:
- study of the basic principles and methods of physical rehabilitation for patients of various profiles,
- implementation of the main methods of physical rehabilitation for patients of various profiles, which is extremely relevant for occupational therapists and physical therapists,

- to plan the management tactics of a patient with a certain pathology.

1.3. According to the requirements of the educational and professional program, students must:
know:
- essence, structure, functions, principles, methodical bases of physical rehabilitation of sick and disabled people;
- symptoms and course of diseases;
- goals and tasks of physical rehabilitation and its main types, the role and place of physical activity in this process;
- methods of diagnostic and therapeutic procedures appropriate for specific disease states;
- the main provisions of physical rehabilitation, the current level of its development in our country;
- development, structure and functions of the human body in normal and pathological conditions;
- the most important risk factors for diseases that occur most often, conditions that contribute to the development of pathological processes of various organs and systems, characteristic of specific types (nosological forms) of disability;
- peculiarities of the organization of physical rehabilitation of sick and disabled people in our country and the world community.

be able to:
- to conduct a rehabilitation examination of the patient and determine a rehabilitation diagnosis;
- select the most effective rehabilitation measures;
- adhere to the principles of asepsis and antisepsis;
- dose and combine restorative measures;
- identify medical problems and prioritize medical management;

- develop a rehabilitation program according to the given diagnosis and stage of treatment;
- evaluate the effectiveness of the involvement of applied rehabilitation measures;
- plan the diagnostic procedure and interpret its results;
- implement appropriate and safe therapeutic treatment and predict its effects;
- evaluate indications and contraindications for the use of rehabilitation programs, taking into account the age characteristics of patients.

is ready to:

- to establish and maintain deep and respectful contact with patients and to show understanding for differences in world views and cultures;
- perceive and recognize own limitations and self-assessing educational deficits and needs;
- use objective sources of information;
- formulate conclusions from own measurements or observations;
- promote health-promoting behaviors;
- formulate opinions on the various aspects of the professional activity,
- to be guided by the well-being of a patient;
- respect medical confidentiality and patients' rights;
- take actions towards the patient on the basis of ethical norms and principles, with an awareness of the social determinants and limitations of the disease;
- assume responsibility for decisions taken in the course of their professional activities, including in terms of the safety of oneself and other persons;
- perceive and recognize own limitations and self-assessing educational deficits and needs;
- implement the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment.

90 hours of 3.0 ECTS credits are allocated to the study of the academic discipline.

The academic discipline is mandatory for study.

The prerequisites for studying an academic discipline are:

- the student must have knowledge of anatomy, histology, biochemistry, physiology, pharmacology, therapy, etc.;
- knowledge of medical terminology;
- the student must have the skills to independently process texts;
- the student must have the skills to independently write essays;
- attending lectures and practical classes;
- performance of the student's independent work;
- active extracurricular work

2. Information volume of the academic discipline

Chapter 1. Determination of the level of physical development and functional capabilities of a person.

Subsection 1. Introduction. The main tasks and content of medical control. Methods of comprehensive research for assessment of physical development and functional capabilities of a person.

Topic 1. Main tasks and content of medical control. Methods of comprehensive research for assessment of physical development and functional capabilities of a person. Admission to health and sports training.

Medical control is a complex medical examination of the physical development and functional state of persons engaged in physical culture and sports. The purpose of medical control is to study the state of health and the impact of physical exertion on the human body . The main form of medical control is a general clinical medical examination with an additional study of sports anamnesis and special functional tests, which makes it possible to timely detect existing and hidden pathology in the body, as well as plan training loads and evaluate their overall effect.

Topic 2. Determination and evaluation of the general physical capacity of a person. Medical-pedagogical observation of the training process . Pre-pathological conditions and diseases during irrational physical exercises.

Physical capacity is an integral indicator of the function of the oxygen transport system. Determining a person's physical capacity provides an objective assessment of the state of the oxygen transport system, the body's readiness for sports, and the effectiveness of sports and health training. An incorrectly constructed training process leads to the development of overstrain and overtraining syndromes , forms chronic diseases of internal organs and limits work capacity. To optimize the training process of the athlete, the coordinated work of the doctor and the trainer is necessary.

Medical and pedagogical observation - this is the joint work of a doctor and a coach with an athlete in the process of training (competitions) to determine and evaluate the immediate, delayed, cumulative effects of training and correction of physical exertion. Depending on the tasks, the following are distinguished: operational control (during training), current (after training for 24 hours), staged (after a certain cycle of training).

Chapter 2. Basics of physical rehabilitation.

Topic 3. General basics of physical rehabilitation. Physical rehabilitation in cardiology

FR is a part of medical rehabilitation, which uses FR means in the complex treatment of patients. Means of FR include movement modes, PV, natural factors. Forms of FR are types of FV classes: LH, DH, including terenkur, occupational therapy , mechanotherapy (all types of work on simulators, simulating cycling, walking, running, rowing), massage procedure, dosed therapeutic swimming, gymnastics in water (hydrokinesis therapy) , RGG. Methods of conducting FR classes: individual, group, independent.

SC diseases occupy the first place in the structure of mortality and disability of patients. In most of them, a significant risk factor is insufficient motor activity - hypodynamia, especially against the background of hypercholesterolemia . Physical training affects almost all mechanisms of compensation and adaptation of SC. With the help of FR, it is possible to restore working capacity, return a significant number of patients to active productive work.

FN for endurance (walking, running, swimming, cycling, gymnastic exercises for large muscle groups) contribute to the improvement of the pumping function of the heart, increase the resistance of the myocardium to hypoxia, normalize the function of the pressor and depressor systems, restore the sensitivity of baroreceptors, contribute to the burning of catecholamines . lipids, glucose, increase the fibrinolytic activity of the blood and cause the production of P-endorphins.

In order to choose adequate means of PR in the case of SC diseases, it is necessary to assess the degree of violations of general and coronary blood circulation, the level of blood pressure at rest and during tests with DFN (VEM, treadmill test, test - 6-minute walk, Holterivske monitoring). - Peculiarities of physical rehabilitation in diseases of the circulatory system. Physical rehabilitation of patients with ischemic heart disease and establishment of modes of motor activity for these persons. Peculiarities of physical rehabilitation in myocardial infarction. Peculiarities of physical rehabilitation in hypertensive disease. Physical exercises for people with initial manifestations of hypertension and atherosclerosis. Use of physical

rehabilitation in patients with circulatory failure. The use of physical rehabilitation in the comprehensive restorative treatment of heart defects and myocardial dystrophy.

Topic 4. Physical rehabilitation of patients with pulmonological , gastroenterological, and endocrinological profiles.

Diseases of the respiratory organs take the second place in the structure of the appeals of the adult population for medical help, digestive organs - the third place, more than 40% of the population of Ukraine have varying degrees of obesity.

FR is an integral part of the complex of medical and restorative measures aimed at preventing the occurrence of a chronic process, disabling patients.

Physical rehabilitation for bronchitis, bronchiectasis , pneumosclerosis. Use of physical rehabilitation in patients with bronchial asthma. Means of physical rehabilitation used in patients with various forms of gastritis. Physical rehabilitation for peptic ulcer disease of the stomach and duodenum. Application of physical rehabilitation in patients with biliary tract dyskinesia . Splanchnoptosis. The use of physical rehabilitation in patients with diabetes. Means of physical rehabilitation used in obese patients.

Topic 5. Physical rehabilitation of patients with surgical and trauma profiles.

Clinical and physiological justification of the use of physical rehabilitation in patients with a surgical profile. Peculiarities of physical rehabilitation during surgical interventions on the organs of the chest (removal of a part of the lung, during surgical interventions on the heart) and abdominal organs. When preparing for planned surgical interventions , patients are taught different types of breathing (thoracic - during operations on the organs of the abdominal cavity, diaphragmatic - during operations on the organs of the chest) and special exercises that will be needed in the postoperative period.

Clinical and physiological justification of the use of physical rehabilitation in patients with a traumatological profile. Peculiarities of the technique of physical rehabilitation in patients with a traumatological profile: with injuries of tubular bones, with fractures of the spine, bones of the pelvis.

Topic 6. Physical rehabilitation of patients with a neurological profile.

Acute disorders of cerebral blood circulation (strokes) occupy a leading place among diseases and are a frequent cause of death, temporary or permanent loss or reduced work capacity.

According to statistics, a third of patients with central and peripheral paralysis lose their ability to work due to untimely and irregular use of FR, which is aimed at restoring lost motor function.

FR for central (spastic) paresis and paralysis: *position treatment , isolated passive PV , active PV for the trunk and healthy limbs , massage* of the affected limbs in accordance with muscle tone in a physiological position, which is combined with passive physical therapy, *teaching patients* household and work skills. Head massage is prescribed no earlier than 4 weeks after the development of a stroke.

Peripheral (flabby) paresis and paralysis without the use of FR are complicated the degeneration of muscles into fat, connective tissue, the development of perineural tissue scars , muscle-joint contractures, which leads to the invalidation of patients, the futility of neurolysis , plastic surgery of peripheral nerves.

Use: *treatment of position* m (the opposite of possible contracture), *massage* in accordance with muscle tone in a corrected position, *special* exercises that do not exceed the physiological volume of movements, repeating them many times during the

day, *electromyogymnastics* in a physiological position.

In case of CM injuries above the X thoracic vertebra, spastic paralysis develops, below it - flaccid paralysis.

They use: *position treatment* (lying on the back, legs slightly abducted and extended in the hip and knee joints, ankle joints - in a physiological position, legs raised 60-100, in case of flaccid paralysis - bandaging of the legs with an elastic bandage), passive *PV* (with spastic lesions - slowly, smoothly, rhythmically, without pain , with flaccid ones - without exceeding the physiological volume of movements), *active FV* for intact muscles, DV to support the automaticity of the bladder (with a shallow breath, lean forward and press on the area of the projection of the bladder at certain hours for urination), *teaching patients* balance, walking with the help of crutches, household and work skills.

For radicular syndromes of osteochondrosis of the lumbar spine, the following are used: *treatment by position* (extremities bent at the knee and hip joints, dry stretching of the spine, wearing a corset), *active physical therapy* (for stretching muscles that are in contracture, strengthening the muscles of the abdominal press, back , buttocks in forms of LH and dosed swimming, *massage,* starting from the subacute period (classical, segmental, periosteal, jar

The evaluation of the effectiveness of the FR according to the degree of restoration of impaired functions is carried out by determining the amplitude of active and passive movements, strength and tone of muscles, coordination of movements, the volume of household and work motor skills.

Topic 7. Physical rehabilitation in pediatrics.

Physical activity is a natural biological need of a child's body at all stages of its development. Hypokinesia leads to a decrease in the adaptive capabilities of the body, slowing down the pace of psychomotor development, reducing the functionality of many organs and systems, especially the musculoskeletal system . Prevention and treatment of orthopedic disorders in children is carried out exclusively by means of physical rehabilitation.

Features of FR of children of the 1st year of life, with congenital muscular torticollis , with dysplasia , subluxation and dislocation of the hip joint, with cerebral palsy, with flat feet, with all types of postural disorders.

Topic 8. Physical rehabilitation in obstetrics and gynecology.

Exercise is necessary for all women with an uncomplicated pregnancy after consultation with a gynecologist. On the days corresponding to menstruation, the load should be significantly reduced due to the possibility of premature termination of pregnancy. Physical exercises in the 1st trimester of pregnancy, in the 2nd trimester of pregnancy, in the 3rd trimester of pregnancy, to correct incorrect positions of the fetus, during childbirth, in the postpartum period, with inflammatory processes of the genitals, with an incorrect position of the uterus, with functional urinary incontinence associated with the descent of the uterus and vaginal walls.

II. STRUCTURE OF THE EDUCATIONAL DISCIPLINE

No z.p. _	Topic name	Lectures (hours)	Practical (hours)	SRS (hours)
Chapter 1. Determining the level of physical development and functional capabilities of a person."				
1.	The main tasks and content of medical control. Methods of comprehensive research for assessment of physical	2.0	3.0	5.0

	development and functional capabilities of a person. Admission to health and sports training.			
2.	Determination and evaluation of a person's general physical capacity, aerobic productivity and tolerance to physical exertion. Admission to health and sports training.		3.0	5.0
3.	Medical and pedagogical observation of the training process. Pre-pathological conditions and diseases with irrational exercise.		3.0	5.0
Chapter 2. Basics of physical rehabilitation.				
4.	General basics of physical rehabilitation. Physical rehabilitation in cardiology	2.0	3.0	5.0
5.	Physical rehabilitation of patients with pulmonological , gastroenterological, and endocrinological profiles.	2.0	3.0	6.0
6.	Physical rehabilitation of patients with surgical and trauma profiles.	2.0	3.0	6.0
7.	Physical rehabilitation of patients with a neurological profile.	2.0	3.0	6.0
8.	Physical rehabilitation in pediatrics.		3.0	6.0
9.	Physical rehabilitation in obstetrics and gynecology.		3.0	6.0
10.	Final lesson.		3.0	
TOTAL 90 HOURS		**10**	**30**	**50**
CREDITS ECT 3.0				
GRADING (differentiated grading)				

III. THEMATIC PLAN OF LECTURES

for students of the 4th year of the 7th-8th semester
medical faculty

No. z/p	Topic name	Number of hours
1	The main tasks and content of medical control. Methods of comprehensive research for assessment of physical development and functional capabilities of a person. Admission to health and sports training.	2
2	General basics of physical rehabilitation. Physical rehabilitation in cardiology.	2

3	Physical rehabilitation of patients with pulmonological , gastroenterological, and endocrinological profiles.	2
4	Physical rehabilitation of patients with surgical and trauma profiles.	2
5	Physical rehabilitation of patients with a neurological profile.	2
	Total:	10

IV. THEMATIC PLAN OF PRACTICAL LESSONS

for students of the 4th year of the 7th-8th semester medical faculty

No s/p	Topic name	Number hours
1	The main tasks and content of medical control. Methods of comprehensive research for assessment of physical development and functional capabilities of a person. Admission to health and sports training.	3.0
2	Determination and evaluation of a person's general physical capacity, aerobic productivity and tolerance to physical exertion. Admission to health and sports training.	3.0
3	Medical-pedagogical observation of the training process . Pre-pathological conditions and diseases during irrational physical exercises.	3.0
4	General basics of physical rehabilitation. Physical rehabilitation in cardiology	3.0
5	Physical rehabilitation of patients with pulmonological , gastroenterological, and endocrinological profiles.	3.0
6	Physical rehabilitation of patients with surgical and trauma profiles.	3.0
7	Physical rehabilitation of patients with a neurological profile.	3.0
8	Physical rehabilitation in pediatrics.	3.0
9	Physical rehabilitation in obstetrics and gynecology.	3.0
10	Final lesson	3.0
	Total:	30

V. THEMATIC PLAN OF INDEPENDENT WORK

for students of the 4th year of the 7th-8th semester medical faculty

No s/p	Topic name	Number hours
1	The main tasks and content of medical control. Know the types of medical control and how it is carried out. Methods of comprehensive research for assessment of physical development and functional capabilities of a person. Know functional tests (Martine- Kushelevsky , Stange , Genchi , orthostatic test, test with dosed isometric load, Rufier test). Admission to health and sports training.	10
2	Preparation for practical classes – theoretical preparation and development of practical skills (evaluation of the results of medical and pedagogical control).	14
3	Conduct and evaluate Cooper's tests, Harvard Step Test.	8
4	Conduct and evaluate the PWC-170 test.	6

5	To assess the functional class of patients with coronary artery disease.	5
6	Learn drainage exercises for pulmonology patients and gastroenterology patients.	2
7	Learn exercises for patients with central and peripheral paralysis or paresis.	4
8	Preparation for the final lesson.	1
	Total:	50

VI. List of individual tasks.

Individual tasks are given to the best students, who are too interested in the discipline, and they claim an "excellent" grade. Additional points are awarded to the student for performing this type of work.

Individual classes include:

1. speeches at inter-departmental , inter-university, All-Ukrainian and international conferences and receiving prizes;
2. printing theses and articles in professional magazines and anthologies (collections of young scientists and students - independently, in magazines - possibly in co-authorship);
3. writing essays.

VII. Learning outcomes.

In the process of studying the discipline "physical rehabilitation", the student must
Know:

- Development, structure and functions of the human body in normal and pathological conditions.
- Symptoms and course of diseases.
- Methods of diagnostic and therapeutic procedures appropriate for specific disease states.

Be able to:

- To master the technique of conducting somatoscopic and somatometric studies of a physical person.
- Identify medical problems and prioritize medical management.
- Master the method of assessing physical development using the index method
- Master the technique of conducting functional tests (Barbell , Genchi , Martine-Kushelevsky , Rufie , with isometric physical load, orthostatic, climbing 4 floors of a standard building).
- Plan the diagnostic procedure and interpret its results.
- Determine the type of reaction of the circulatory system to dynamic physical exertion.
- Evaluate the results of hypoxic tests (Stange and Genchi).
- Evaluate the results of the orthostatic test.
- Adhere to the principles of asepsis and antisepsis.
- Implement appropriate and safe therapeutic treatment and predict its effects.
- To master the method of determining the level of physical performance according to the modified Cooper test.
- Master the method of conducting the Harvard step test.
- Master the MSC technique according to the Astrand-Riming nomogram .
- On the basis of the obtained results, give a medical opinion regarding health and sports training.
- To master the method of conducting medical and pedagogical control.
- Based on the revealed results of the medical and pedagogical control, give recommendations to the coach regarding the intensity of the load in all parts of the lesson.
- Master the technique of drawing up a treatment plan with the appointment of means and

forms of physical rehabilitation.

- Master the method of dosage of physical exercises.
- Master the methodology for assessing the adequacy and effectiveness of physical rehabilitation.
- Prescribe and demonstrate FV aimed at the development of basic motor qualities (general endurance, strength, flexibility, coordination of movements, balance and speed of motor reaction)
- Prescribe and demonstrate FV: according to the volume of involved muscles (local, regional, global), according to the mode of muscle work (dynamic, isometric), according to the sign of activity (postural FV , passive, including basic massage techniques, passive-active, active , active with resistance and weight), by sources of energy supply (aerobic, anaerobic, mixed), respiratory (static, dynamic), corrective (symmetric, asymmetric), game
- Demonstrate the basic techniques of classical massage
- Determine and evaluate the functional state of the patient's body based on the results of stress tests
- Prescribe drugs according to the protocol, demonstrate special physical exercises
- Calculate Ps training, dosed walking speed, load power during cycling training
- Carry out control during training classes (measurement of Ps , BP) and determine the adequacy of prescribed FN
- Carry out an assessment of the cumulative effect of the FR;

Is ready to:

- Promote health-promoting behavior.
- Perceive and recognize own limitations and self-assessing educational deficits and needs.
- Use objective sources of information.
- Establish and maintain deep and respectful contact with patients and to show understanding for differences in world views and cultures.
- Be guided by the well-being of a patient
- Respect medical confidentiality and patients' rights.
- Take actions towards the patient on the basis of ethical norms and principles, with an awareness of the social determinants and limitations of the disease.
- Assume responsibility for decisions taken in the course of their professional activities, including in terms of the safety of oneself and others.
- Formulate conclusions from own measurements or observations.
- Implement the principles of professional camaraderie and cooperation in a team of specialists, including representatives of other medical professions, also in a multicultural and multinational environment.
- Formulate opinions on the various aspects of the professional activity.

VIII. Methods of teaching students.

Types of educational activities of students according to the curriculum are: a) lectures, b) practical classes, c) independent work of students (SRS).

The topics of the lecture course reveal the problematic issues of the relevant sections of physical rehabilitation.

Practical classes include:

1) study by students of the level of physical development and the functional state of the cardiovascular system.
2) research by students of the reaction of the cardiovascular, autonomic nervous system during physical exertion.
3) to give a medical opinion regarding health and sports training classes.;
4) appointment of treatment with means of physical rehabilitation for patients of various profiles;

5) solving situational problems.

IX. Methods of quality control of students' knowledge.

1. Current educational activities of students are monitored in practical classes in accordance with specific goals and during individual work of the teacher with students.

2. Assessment of independent work of students, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom lesson. The evaluation of topics that are assigned only to independent work and are not included in the topics of classroom training sessions is controlled during the credit control.

3. The assessment is carried out upon completion of the study of the discipline "Physical Rehabilitation".

X. Criteria for evaluating students' knowledge of the discipline.

The evaluation of the student's success in the discipline is a rating and is presented on a multi-point scale as the average arithmetic evaluation of the mastery of the relevant sections and is defined according to the ECTS system and the traditional scale adopted in Ukraine.

The final grade for the current educational activity (PND) and final classes (PW) is defined as the arithmetic average of traditional grades for each lesson and PW, rounded to 2 decimal places and recalculated into a multi-point scale according to the table.

4-point scale	200-point scale	4-point scale	200-point scale
5	120	3.91-3.94	94
4.95-4.99	119	3.87-3.9	93
4.91-4.94	118	3.83-3.86	92
4.87-4.9	117	3.79-3.82	91
4.83-4.86	116	3.74-3.78	90
4.79-4.82	115	3.7-3.73	89
4.75-4.78	114	3.66-3.69	88
4.7-4.74	113	3.62-3.65	87
4.66-4.69	112	3.58-3.61	86
4.62-4.65	111	3.54-3.57	85
4.58-4.61	110	3.49-3.53	84
4.54-4.57	109	3.45-3.48	83
4.5-4.53	108	3.41-3.44	82
4.45-4.49	107	3.37-3.4	81
4.41-4.44	106	3.33-3.36	80
4.37-4.4	105	3.29-3.32	79
4.33-4.36	104	3.25-3.28	78
4.29-4.32	103	3.21-3.24	77
4.25-4.28	102	3.18-3.2	76
4.2-4.24	101	3.15-3.17	75
4.16-4.19	100	3.13-3,14	74
4.12-4.15	99	3.1-3,12	73
4.08- 4.11	98	3.07-3.09	72
4.04-4.07	97	3.04-3.06	71
3.99-4.03	96	3.0-3.03	70
3.95-3.98	95	Less than 3	Not enough

The evaluation criterion at the final lesson, which is held during the lesson, is 90.5% of correctly solved tasks.

Evaluation criteria for learning practical skills at the final session are "passed" or "failed".

The minimum number of points that a student must score for admission to a differentiated assessment is 70 points.

Evaluation of theoretical knowledge, if practical skills are evaluated according to the criteria "passed", "failed"

Number of questions	"5"	"4"	"3"	Oral answer for tickets that include the theoretical part of the discipline	For each answer, the student receives from 10 to 16 points, which corresponds to: "5" - 16 points; "4" - 13 points; "3" - 10 points.
1	16	13	10		
2	16	13	10		
3	16	13	10		
4	16	13	10		
5	16	13	10		
	80	65	50		

The maximum number of points that a student can earn for studying a discipline **is** 200 points, including the maximum number of points for current educational activity - 120 points, as well as the maximum number of points based on the results of differentiated assessment - 80 points. The minimum number of points is 120, including the minimum current educational activity - 70 and based on the results of differentiated assessment - 50 points.

Distribution of points received by students

Evaluation of the results of studying the discipline is carried out during the exam. The grade for the discipline is defined as the sum of points for the current educational activity and the exam and is min - 120 to max - 200.

Correspondence of grades on a 200-point scale, four-point (national) scale and EUTS scale

Rating on a 200-point scale	Evaluation on the ECTS scale	Score for four-point (national) scale
180–200	A	Perfectly
160–179	B	Fine
150–159	C	Fine
130–149	D	Satisfactorily
120–129	E	Satisfactorily
Less than 120	F, Fx	Unsatisfactorily

The number of points for physical rehabilitation awarded to students is converted to the *ECTS scale* as follows :

Estimation of ECTS	Statistical indicator
A	The best 10% of students
B	The next 25% of students
C	The next 30% of students
D	The next 25% of students
E	The last 10% of students

The number of points in the discipline awarded to students is converted into a 4-point scale as follows:

Estimation of ESTS	Evaluation on a 4-point scale

A	"5"
B	"4"
D, E	"3"
FX, F	"2"

The grade FX, F ("2") in the discipline is assigned to students who have not been credited with at least one section of the discipline after completing its study.

XI. Means of assessment of students' knowledge.

The means of evaluating the results of training in the discipline "Physical Rehabilitation" are:
– current control of knowledge;
– intermediate control of knowledge;
– final control of knowledge;
– standardized tests;
- essays;
– student presentations;
– speeches at scientific events;

XII. Recommended Books.

XIII. Basic literature:

1. Amosov N.M., Bendet Ya.A. Physical activity and heart / Amosov N.M., Bendet Y.A. - K.: Health, 1984. - 254 p.
2. Graevskaya N.D. Dolmatova T.I. Sports medicine / Graevskaya N.D. Dolmatova T.I. - M.: Sovetsky sport, 2005. - 277 p.
3. Children's room sports medicine / Guide under the editorship Tykhvinsky S.B., Khrushchev S.V. - M., 1984. - 558 p.
4. Zatsiorsky V.M. Basics sports metrology / Zatsiorskyi V.M. - M.: FiS , 1979. - 151 p.
5. Karpman V.L. Sports medicine / sub. ed. V.L. Karpman .- M., 1980 - 346 p.
6. Kenneth Cooper. Novaya aerobics / Kenneth Cooper. - M.: FiS , 1976. -119p.
7. Kukolevsky H.M., Graevskaya N.D. Basics sports medicine / Kukolevsky H.M., Graevskaya N.D. - M.: Medicine, 1971. - 367 p.
8. Martirosov E.G. Methods studies in sports anthropology / E.G. Martirosov - M.: FiS , 1982. - 246 p.
9. Platonov V.N. Doping and ergogenic means in sports / Sub common edited by Platonov V.N. - K.: Olimpiyskaya literature , 2003. - 574 p.
10. Romanishyn M.Ya. Physical rehabilitation in sports / M. Ya. Romanyshin. – Rivne, 2007. - 366 p.
11. Romanchuk A.P. Contemporary approaches to assessment cardiorespiratory interact with sportsmen / Romanchuk A.P. – Odessa: Astroprint , 2006. -231p.
12. Sports physiology / Ed . Y.M. Kotsa - M., 1986. - 282 p.
13. Wilmore J. _ H., Kostyl D.L. Physiology sport and movement activities (translated from English) / Wilmor J. _ H., Kostyl D.L. - K.: Olimpiyskaya literature , 1997. – 574 p.

14. Khamzin H.Kh. Correct posture / Khamzyn H.Kh. - M.: Medicine . 1972. -94 p.
15. Shapovalova V.A., Korshak V.M., Khaltagarova V.M. etc. Sports medicine and physical rehabilitation / Shapovalova V.A., Korshak V.M., Khaltagarova V.M. etc. - K.: Medicine, 2008. - 246p.
16. Medical literature in electronic libraries: PubMed , Embase , Scirus , Google Scholar , eLIBRARY.RU
17. Open electronic medical libraries (full-text versions of articles):
PubMed Central , BioMed Central , Directory of open access journals - Health Sciences , Public Library of Science - Medicine , FreeMedicalJournals.com
18. Abramchenko V.V., Bolotskikh V.M. Therapeutic physical education in obstetrics and gynecology : Guide for doctors / Abramchenko V.V., Bolotskikh V.M. - M.: ELBY - St. Petersburg, 2007. - 220 p.
19. Belaya N.A. Guide to treatment massage / Belaya N.A. - M.: Medicine, 1983. - 287p.
20. Belova A.N. Neurorehabilitation : manual for doctors / Belova A.N. - M.: Antidor , 2000. - 568 p.
21. Biryukov A.A., Valeev N.M., Garaseva T.S. Physical rehabilitation : textbook for students higher educational institutions / A.A. Biryukov , N.M. Valeev , Haraseva T.S. - Rostov n/a: Phoenix , 2008. - 602 p.
22. Diseases bodies breathing (Private pulmonology): Handbook for doctors / Ed . Acad. Poleeva N.R. - M.: Medicine. 1990. – 383 p.
23. Bonev L. Guide to kinesitherapy / Ed . L. Bonev and others . – Sofia : Medicine and Physical Education , 1978. - 357 p.
24. Vorobyova I.I. Driving mode and treatment physical education in pulmonology / Vorobyova I.Y. - M.: Medicine, 2000. - 64p.
25. Goldblatt Yu.V. Medical and social rehabilitation in neurology / Yu.V. Goldblat – St. Petersburg: Polytechnic , 2006. - 606 p.
26. Daniel H. Bessesen , Robert Kushner Redundant weight and obesity . Prevention , diagnosis and treatment / Daniel H. Bessesen , Robert Kushner . - Bynom , 2004. – 240 p.
27. Denisov M. Yu. Practical gastroenterology for a pediatrician / Denisov M. Yu. - M.: Publisher Mokeev , 2000. – 295 p.
28. Epifanov V.A. Therapeutic physical education / V.A. Epifanov - M.: GE OTAR MEDIA, 2009. - 568 p.
29. Epifanov V.A. Therapeutic physical education and medical control / Ed . V.A. Epifanova , G.L. Apanasenko . - M.: Medicine, 1990. - 366 p.
30. Epifanov V.A. Medicinskaya rehabilitation : Guide for doctors / V.A. Epifanov - M.: MEDpress-inform , 2005. – 326 p.
31. Epifanov V.A. Therapeutic physical education / Directory under the editorship V.A. Epifanova . - M.: Medicine, 1987. - 528 p.

32. Ivanov S.M. Therapeutic physical culture in children 's diseases aged / under the editorship Prof. S.M. Ivanova . - M.: Medicine, 1983. - 400 p.
33. Carr F. Obstetrics, gynecology and health women / Carr F. – M.: MEDpress-inform , 2005. – 176 p.
34. Klapchuk V.V. Therapeutic physical education and sports medicine: a textbook for students of higher educational medical institutions / under the editorship. V.V. Klapchuk , G.V. Dziaka _ - K.: Health, 1995. - 310 p.
35. Kovalenko E.A., Gurovsky N.N. Hypokinesia / Kovalenko E.A., Gurovsky N.N. - M.: Medicine, 1980. - 320 p.
36. Kuzyn M.I., Shkrob O.S. Therapeutic gymnastics in December surgery / Kuzyn M.I., Shkrob O.S. M: Medicine, 1984. - 174 p.
37. Mukhin V.M. Physical rehabilitation / Mukhin V.M. - K.: Olympic literature, 2005. - 301p.
38. Nikolaeva L.F., Aronov D.M. Rehabilitation patients with ischemic disease hearts / Nikolaeva L.F., Aronov D.M. - M.: Medicine, 1988. -280p.
39. Pollock M.L., Schmidt D.H. Diseases hearts and rehabilitation / Pollock M.L., Schmidt D.H. - K.: Olympic Literature, 2000. - 239 p.
40. Popov S.N. Physical rehabilitation / S.N. Popov - Rostov n/a: Phoenix , 2004. - 608 p.
41. Popova N.A. Treatment spastic acute and subacute paralysis _ period / N.A. Popova - M.: Gosud . Medical Publishing House literature , 1963. – 120 p.
42. Prevarsky B.P. Engine modes sick chronic ischemic disease hearts : Method. recommendations . / Prevarsky B.P. etc. _ _ - Kyiv, 1981, - 23 p.
43. Rune Hedman . Sporty physiology / Rune Hedman . - M.: Fyzkultura i sport, 1980. - 152 p.
44. Siluyanova V.A. Clinical and physiological justification applications healing physical culture in diseases respiratory device // Lechebnaya physical education in the system medical rehabilitation : Guide for doctors / Ed . A. F. Kaptelina , I. P. Lebedeva . - M.: Medicine, 1995. - P. 262-268
45. Tyson S. Get started to move : Guide to recovery engine functions after transferred stroke / Ed . Hurinoy L.A. - St. Petersburg: Polytechnic , 2001. - 81 p.
46. Treshchynskaya M.A., Golovchenko Yu.I. Basic therapy of cerebral stroke as the basis of ego treatment / M.A. Treshchynskaya , Yu.Y. Golovchenko. - Emergency medicine state , 2007, No. 3. - pp. 75-78.
47. Hawley E., Franks B. Guide the instructor health care fitness / Home E., Franks B. - Kyiv , 2004. – 249-252 p.
48. Shatalyuk B.P., Borysko A.S., Kartysh A.P. Therapeutic physical education with bronchial asthma / Shatalyuk B.P., Borysko A.S., Kartysh A.P. - K.: Health, 1985. – 60 p.
49. Shurygin D.Ya., Vyazitskyi P.O., Sidorov K.A. Obesity / D.Y. Shurygin , P.O.

Vyazitsky , K.A. Sidorov. - M.: Medicine, 1980. – 264 p.
50. Yumashev G.S., Furman M.E. Osteochondrosis of the spine / Yumashev G.S., Furman M.E. - M.: Medicine, 1984. - 383 p.

XIII. Supporting literature:

1. Vinychuk S.M. Nervous diseases: a textbook /[ed. Prof. S.M. Vinychuk , prof. E.H. Dubenko]. - K: "Health", 2001. - 696p.
2. Golubev V.L. Vegetative disorders / V.L. Golubev , A.M. Wayne , T.G. Voznesenskaya , Vorob'eva O.V. - MIA, 2010. - 640 p.
3. Husev E.I. Neurology : national manual / Brief edition _ GEOTAR- Media , 2014. - 688 p.
4. Levin O.S. The main ones medicinal means used in neurologists / O.S. Levin . - MEDpress-inform , 2014.-368 p.
5. Merholtz I. Rannaya rehabilitation after stroke / Ya. Merholts . - MEDpress-inform , 2014.-248 p.
6. Nikiforov A.S., Gusev E.I. Private neurology : учебное allowance for post-graduate studies education / A.S. Nikiforov, E.I. Gusev _ - Moscow: GEOTAR- Media , 2013.
7. Thomas R., Brown . Epilepsy : clinical manual / R. Thomas, Brown . - BYNOM, 2014.- 280 p.
8. Shevaga V.M. Neurology: a textbook / [ed. Prof. V.M. Shevaga , prof. A.V. Payenok]. - Kyiv: "Medicine", 2009. - 656p.
9. Shtok, V. N. Reference book on formulation clinical diagnosis diseases nervous systems / V.N. Stock - Medicinal Information Agency (MIA), 2013.-504p.

XV. The form of final control of study success.

According to the typical curriculum, the form of final control of knowledge in the discipline " Physical rehabilitation, sports medicine " is a differential assessment, which consists in evaluating the student's learning of the educational material solely on the basis of the results of his performance of certain types of work in practical classes. Differential assessment is carried out upon completion of the study of all topics of sections of the discipline " Physical rehabilitation, sports medicine " within two semesters, at the last control session of the course.

During the differentiated assessment, an oral survey is conducted according to the tickets, the solution of a package of test tasks, which include basic test tasks in the amount of 30 tests. Completion of written tasks. Tasks include all studied sections of the discipline and can be presented in the form of questions, situational tasks. On the differentiated assessment, the mastering of practical skills is evaluated.

"APPROVED''

Україна * Приватний заклад * м.Київ * «МІЖНАРОДНА АКАДЕМІЯ ЕКОЛОГІЇ ТА МЕДИЦИНИ» Ідентифікаційний код 37857335

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