MINISTRY OF HEALTH OF UKRAINE

KHARKIV NATIONAL MEDICAL UNIVERSITY

II medical faculty

Department of sports, physical and rehabilitation medicine, physical therapy, occupational therapy

Area of knowledge 22 "Health care"

Specialty 222 "Medicine"

Educational-professional program Medicine of the second (master's) level of higher education

SYLLABUS

ACADEMIC DISCIPLINE

**"PHYSICAL REHABILITATION AND SPORTS MEDICINE"**

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| --- | --- | --- |
| The syllabus of the discipline was approved at a meeting of the department of sports, physical and rehabilitation medicine,physical therapy, occupational therapy  Protocol from "01" September 2020 № 1  Head of Department\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A.G. Istomin   "01" 2020 September |   | Approved by the methodical commission of KNMU on problems of therapeutic profile    Protocol from. "28" October 2020 № 2 Head \_\_\_\_\_\_\_\_\_\_\_\_ P.G. Kravchun  "28" 2020 October |

**PHYSICAL REHABILITATION AND SPORTS MEDICINE**

Syllabus developers :

Istomin A.G. Head of the department of physical rehabilitation and sports medicine with a course of physical education and health, doctor of medical sciences, professor;

Latoguz S.I. Associate Professor of physical rehabilitation and sports medicine with a course of physical education and health, Ph.D;

Rezunenko O.V. Associate professor of physical rehabilitation and sports medicine with a course of physical education and health, Ph.D.

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| Surname, patronymic of the teacher | Rezunenko Olga Vasilivna |
| Information about the teacher | Professional interests: physical rehabilitation, sports medicine, therapeutic massage, occupational therapy, chiropractic. Teacher profile : http:// 31.128.79.157:8083/user/ profile.php?id=1404  |
| Contact phone | +380 991850327 |
| E-mail: | ol84ga@ukr.net |
| Information about the consultation :face-to-face consultationsschedule : venue : online consultations  |    Tuesday from 13.00 to 15.00Thursday from 13.00 to 15.00University Clinic of KNMU, street Alexander Speyer, 4 by prior arrangement , http://31.128.79.157:8083/user/profile.php?id=1404 |
| Location | street Alexander Speyer, 4 |

**Information about the discipline**

**1. Description of the discipline**

Course - IV

Specific semester / academic year - autumn

Scope of the discipline (in ECTS credits with determination of the distribution of hours for lectures, practical classes, seminars, VTS) : total number of credits - 3, lectures - 10 hours, practical classes - 30 hours, VTS - 50 hours.

General characteristics of the discipline .

**Sports medicine**is a clinical discipline that studies the positive and negative effects of exercise of varying intensity (from hypo- to hyperdynamics) on the body of a healthy or sick person. The purpose of studying the discipline is to form students' ideas about the possibility of maintaining and strengthening health, improving the level of functional status, growth of sports achievements by optimizing physical activity and improving the medical support of sports or health training.

Means of physical culture and sports are beginning to take a leading place in the system of measures aimed at correcting health and functional status, expanding the body's reserve capacity, improving the mechanisms of adaptation. At the same time, physical culture and sports provide their health value only when certain conditions are met, the most important of which are the avoidance of physical and psycho-emotional stress, individualization of loads and their optimality. Violation of these conditions, especially the use of too much training load in modern sports to quickly achieve certain sports results or irrational physical activity, lead to negative and sometimes tragic consequences - from fatigue, various diseases and injuries to conditions incompatible with life.

**Physical rehabilitation**

Physical rehabilitation is an integral part of medical and social rehabilitation. As an independent branch of medical knowledge, it studies the scientifically sound foundations of the rational use of means and methods of physical culture and other physical factors to restore health, efficiency and quality of life, which were impaired by disease, injury or other damage. The purpose of studying the discipline is for students to acquire knowledge about the means of the most effective and early return of patients and the disabled to domestic and work processes.

At the present stage in the system of physical rehabilitation of patients a significant place belongs to one of the most important means of physical rehabilitation - therapeutic physical culture. Therapeutic physical culture is a method of active, functional, pathogenetic and training therapy and reflects the principles of active rehabilitation, which is in full accordance with the rehabilitation direction in modern clinical medicine. Underestimation of this method often leads to an increase in the duration of treatment and the emergence of various functional disorders or more serious complications and sometimes to disability. Modern health care practice involves the use of physical rehabilitation at all stages of medical rehabilitation (hospital, outpatient department, sanatorium treatment). Physical rehabilitation is carried out taking into account the succession of rehabilitation stages and combination with physiotherapeutic methods of treatment, manual therapy, acupuncture and other methods of treatment in rehabilitation departments, vocational rehabilitation centers and combined (medical and vocational) rehabilitation centers. This scheme is consistent with the developments of the WHO Expert Committee on Rehabilitation, as well as international ideas about the construction of rehabilitation centers in various areas.

**The subject**of the discipline is the formation of students' adequate ideas about their future activities, the peculiarities of the profession and the requirements that will be presented to the future specialist with higher education. Medical universities should train well-developed specialists who would have theoretical knowledge and practical skills and abilities to use physical rehabilitation and sports medicine in their treatment and prevention work.

Link to the video annotation of the discipline (if available) - .

Discipline page in the Moodle system (if available): http://31.128.79.157:8083/user/profile.php?id=1404

**2. The purpose and objectives of the discipline :**

The purpose of teaching the discipline is to form students' ideas about the possibility of maintaining and strengthening health, improving the level of functional status, growth of sports achievements by optimizing physical activity and improving medical care for sports or health training, as well as students gaining knowledge about the most effective and early return of patients and the disabled to domestic and labor processes.

The main tasks of studying the discipline "Physical Rehabilitation, Sports Medicine" are :

- determining the compliance of physical activity with the state of health and functional capabilities of the body at different stages of health or sports training;

- timely diagnosis of health disorders associated with irrational sports or physical culture, as well as their prevention;

- participation in the management of the training process;

- sanitary and hygienic and medical support of the educational and training process and sports events;

- rehabilitation treatment of persons engaged in physical culture and sports after illness and injury;

- differentiated purpose of means and forms of physical rehabilitation, as well as to justify the choice of special exercises and their dosage for diseases of internal organs, surgery, orthopedics and traumatology, obstetrics and gynecology .

**3. Discipline status**(normative) and **discipline format**: ***mixed***.

**4. The method of teaching I**:

1. Verbal method.

2. Visual method.

3. Computer method.

4. Independent work with literary sources.

5. Moodle system .

**5. Recommended reading :**

1. Лікувальна фізкультура та спортивна медицина: Підручник / Клапчук В.В., Дзяк Г.В., Муравов І.В. та ін.; за ред. В.В. Клапчука, Г.В. Дзяка. – К.: Здоров’я, 1995. – 312 с.

2. Лікувальна фізкультура та спортивна медицина: Тестові завдання для контролю знань студентів медичного та стоматологічного факультетів вищих медичних навчальних закладів ІУ рівнів акредитації (Навчальний посібник) / Абрамов В.В., Клапчук В.В., Магльований А.В., Смирнова О.Л., та ін.; за ред. проф. В.В. Клапчука та проф. А.В. Магльованого. – Дніпропетровськ: Мед академія, 2006. – 124 с.

3. Лікувальна фізкультура та спортивна медицина (Вибрані лекції для студентів) / Абрамов В.В., Клапчук В.В., Смирнова О.Л. та ін.; за ред. проф. В.В Клапчука. – Дніпропетровськ: Медакадемія, 2006. – 179 с.

4. Мухін В.М. Фізична реабілітація. – Видання друге, перероблене та доповнене. – Київ: Олімпійська література, 2005. – 248 с.

5. Основи реабілітації, фізіотерапії, лікувальної фізичної культури і масажу / За ред. В.В. Клапчука, О.С. Полянської. – Чернівці: Прут, 2006. – 208 с.

6. Реабилитация кардиологических больных /Под ред. К. В. Лядова, В.Н. Преображенского. – М.: ГЭОТАР-Медио, 2005. – 288 с.

7. Sports Injury Prevention and Rehabilitation : Integrating Medicine and Science for Performance Solutions. Edited by David Joyce, Daniel Lewindon - Taylor & Francis Ltd, 2016. – 452 p.

8. Neurological Rehabilitation: Optimizing motor performance. By (author) Janet H. Carr, Roberta B. Shepherd. - Elsevier Health Sciences, 2010. – 376 p.

**6. Prerequisites and co-requisites of the discipline**

Physical rehabilitation and sports medicine as a discipline is based on the study of human anatomy, medical biology, medical chemistry, medical and biological physics, physiology, pathophysiology, hygiene and ecology, pharmacology, propaedeutics of internal medicine, propaedeutics of pediatrics and integrates with disciplines; provides consistency and interconnection with internal medicine, surgery, traumatology and orthopedics, neurology, pediatrics, obstetrics and gynecology and other subjects of the curriculum, which provides for the integration of teaching with these disciplines.

**7. Learning outcomes**

*As a result of studying the discipline the student must*

**Know:**

* key concepts of physical rehabilitation and sports medicine as a clinical discipline.

**Be able:**

- be able to analyze and predict the impact of physical activity on the human body according to medical control and prescribe motor regimes and means of physical rehabilitation in accordance with the state of health, functional abilities of the body and tolerance to physical activity.

- have a modern arsenal of tools and methods of physical rehabilitation for timely and adequate use in the treatment of patients of various profiles, aimed at the most effective and rapid recovery of health and impaired functions, and if this is not possible - to create sustainable compensation, in general - to improve the quality of life of patients.

**The content of the discipline**

|  |  |
| --- | --- |
| Names of sections of the discipline and topics | Number of hours |
| Form of study (day or evening) |
| total | Including |
| cure | ave | lab | ind | cf. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Discipline section 1. Sports medicine |
| Modern ideas about sports medicine. History of science development. The main tasks and content of medical control. | 4 | 2 | - | - | - | 2 |
| Methods of complex medical examination. Definition and assessment of human physical development. | 8 | - | 4 | - | - | 4 |
| Research and assessment of the functional state of the cardiovascular, respiratory and autonomic nervous systems using functional tests. Determination and assessment of overall physical performance and aerobic performance. Tolerance to physical activity. | 11 | 2 | 5 | - | - | 4 |
| Comprehensive medical examination of persons engaged in physical culture and sports. Research and evaluation of human physical development. | 8 | - | 4 | - | - | 4 |
| Analysis of the results of a comprehensive medical examination. Medical opinion. Compilation of individual sports and health regimes. | 4 | - | - | - | - | 4 |
| Together under section 1 | 35 | 4 | - |   |   | 18 |
| Discipline section 2. Physical rehabilitation |
| General basics of physical rehabilitation. Structure and content of exercise complexes. Basics of therapeutic massage. Receptions. | 10 | 2 | 4 | - | - | 4 |
| Physical rehabilitation for diseases of the respiratory, digestive, renal and metabolic disorders. Physical rehabilitation in diseases of the cardiovascular system. | 11 | 2 | 5 | - | - | 4 |
| Physical rehabilitation in surgery, traumatology and orthopedics. | 9 | 1 | 4 | - | - | 4 |
| Features of application of means of physical rehabilitation in obstetrics and gynecology. Features of physical education of infants. Physical rehabilitation of sick young children | 9 | 1 | 4 | - | - | 4 |
| Preparation for practical classes (item 3.2.2) ; review of scientific and methodical literature; formation of practical skills. | 4 | - | - | - | - | 4 |
| Writing a medical control card of an athlete and athlete (form № 061 / о or №162 / о) and a card of a patient being treated in an exercise therapy room, rehabilitation department or rehabilitation center (form № 42 / o). | 8 | - | - | - | - | 8 |
| Execution of an individual task: preparation of an abstract or scientific report at a meeting of a scientific circle, scientific-student conference; participation in the interuniversity Olympiad; scientific publications, etc. | 4 | - | - | - | - | 4 |
| Together under section 2 | 55 | 6 | 17 | - | - | 32 |
| Total hours of discipline | 90 | 10 | 30 | - | - | 50 |

**Lecture topics**

|  |  |  |
| --- | --- | --- |
| № s / n | Topic | Number of hours |
| Section discipline 1.Sports medicine |
| 1 | Modern ideas about sports medicine. History of science development. The main tasks and content of medical control. | 2 |
| 2 | Research and assessment of the functional state of the cardiovascular, respiratory and autonomic nervous systems using functional tests. Determination and assessment of overall physical performance and aerobic performance. Tolerance to physical activity. | 2 |
| Discipline section 2. Physical rehabilitation |
| 3 | General basics of physical rehabilitation. Structure and content of exercise complexes. Basics of therapeutic massage. Receptions. | 2 |
| 4 | Physical rehabilitation for diseases of the respiratory, digestive, renal and metabolic disorders. Physical rehabilitation in diseases of the cardiovascular system. | 2 |
| 5 | Physical rehabilitation in surgery, traumatology and orthopedics. Features of application of means of physical rehabilitation in obstetrics and gynecology. Features of physical education of infants. Physical rehabilitation of sick young children | 2 |
| Total lecture hours | 10 |

**Topics of practical classes**

|  |  |  |
| --- | --- | --- |
| № s / n | Topic | Number of hours |
| Section discipline 1. Sports medicine |
| 1 | Methods of complex medical examination. Definition and assessment of human physical development. | 4 |
| 2 | Research and assessment of the functional state of the cardiovascular, respiratory and autonomic nervous systems using functional tests. Determination and assessment of overall physical performance and aerobic performance. Tolerance to physical activity. | 5 |
| 3 | Comprehensive medical examination of persons engaged in physical culture and sports. Research and evaluation of human physical development | 4 |
| Discipline section 2. Physical rehabilitation |
| 4 | General basics of physical rehabilitation. Structure and content of exercise therapy complexes. Basics of therapeutic massage. Receptions. | 4 |
| 5 | Physical rehabilitation for diseases of the respiratory, digestive, renal and metabolic disorders. Physical rehabilitation in diseases of the cardiovascular system. | 5 |
| 6 | Physical rehabilitation in surgery, traumatology and orthopedics. | 4 |
| 7 | Features of application of means of physical rehabilitation in obstetrics and gynecology. Features of physical education of infants. Physical rehabilitation of sick young children. Differentiated credit. | 4 |
| Total hours of practical training | 30 |

**Individual work**

|  |  |  |
| --- | --- | --- |
| № s / n | Topic | Number of hours |
| 1 | Modern ideas about sports medicine. History of science development. The main tasks and content of medical control. Methods of complex medical examination. Preparation for practical classes ; review of scientific and methodical literature; formation of practical skills. | 4 |
| 2 | Methods of complex medical examination. Definition and assessment of human physical development. | 4 |
| 3 | Research and assessment of the functional state of the cardiovascular, respiratory and autonomic nervous systems using functional tests. | 4 |
| 4 | Comprehensive medical examination of persons engaged in physical culture and sports. Research and evaluation of human physical development. | 4 |
| 5 | Analysis of the results of a comprehensive medical examination. Medical opinion. Compilation of individual sports and health regimes. | 2 |
| 6 | General basics of physical rehabilitation. Structure and content of exercise complexes. Basics of therapeutic massage. Receptions. | 4 |
| 7 | Physical rehabilitation for diseases of the respiratory, digestive, renal and metabolic disorders. Physical rehabilitation in diseases of the cardiovascular system. | 4 |
| 8 | Physical rehabilitation in surgery, traumatology and orthopedics. | 4 |
| 9 | Features of application of means of physical rehabilitation in obstetrics and gynecology. Features of physical education of infants. Physical rehabilitation of sick young children | 4 |
| 10 | Writing a medical control card of an athlete and athlete (form № 061 / о or №162 / о) and a card of a patient being treated in an exercise therapy room, rehabilitation department or rehabilitation center (form № 42 / o). | 4 |
| 11 | Execution of an individual task: preparation of an abstract or scientific report at a meeting of a scientific circle, scientific-student conference; participation in the interuniversity Olympiad; scientific publications, etc. | 4 |
| 12 | Preparation for practical classes (item 3.2.2) ; review of scientific and methodical literature; formation of practical skills. | 2 |
| thirteen | Comprehensive medical examination of persons engaged in physical culture and sports. Research and evaluation of human physical development | 4 |
| 14 | Preparation for differentiated credit | 2 |
| Total hours of independent student work | 50 |

**Discipline policy and values**

Discipline requirements .

Written and homework should be done in full and on time if the student/

During the lecture, students are recommended to keep a synopsis of the lesson and keep a sufficient level of silence. Ask questions to the lecturer / -ki - this is perfectly normal.

Practical training

Active participation in the discussion in the classroom, students / -ki should be prepared in detail to understand the material, ask questions, express their views, debate. During the discussion it is important:

- respect for colleagues,

- tolerance for others and their experience,

- receptivity and impartiality,

- the ability to disagree with the opinion, but to respect the identity of the opponent ( s) ,

- careful argumentation of his opinion and the courage to change his position under the influence of evidence,

- self-expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on their own thoughts and emotions,

- obligatory acquaintance with primary sources.

A creative approach in its various manifestations is welcome. Students / s expected interest participation in local, national and international conferences, competitions and other events with the objective profile.

Class attendance and behavior .

It is expected that students will attend all lectures and practical classes. If they missed classes, it is necessary to work it out (according to the schedule on the information stand of the department) .

It is important for students to follow the rules of good behavior at the university. These rules are common to all, as they relate to the entire faculty and staff / -ts and not fundamentally different from conventional norms.

**During classes it is allowed:**

- leave the audience for a short time if necessary and with the permission of the teacher;

- drink soft drinks;

- take photos of presentation slides;

- take an active part in the class.

**forbidden:**

- eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required);

- smoking, drinking alcohol and even low-alcohol beverages or drugs;

- use obscene language or use words that offend the honor and dignity of colleagues and faculty;

- gambling;

- damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter the premises and territories);

- shouting, shouting or listening to loud music in classrooms and even in corridors during classes.

Use of electronic gadgets .

The use of electronic gadgets is the main and powerful source of information for studying the course, adaptable to modern requirements and promotes entry into modern and European educational space. Gadgets provide constant feedback: "teacher-student", "student-student ", "student-group of students".

Academic Integrity Policy .

The Department of Physical Rehabilitation and Sports Medicine with a course in physical education and health maintains zero tolerance for plagiarism. Male and female students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research .

Policy for people with special educational needs .

The university has created conditions for the opportunity to receive educational services to citizens with special educational needs, for access to the premises, equipment, ramps, support is provided. order dated 22.06.2018 № 203 On approval of the Procedure for accompanying (providing assistance) to persons with disabilities, elderly people, other low-mobility groups during their stay on the territory (premises) of KhNMU.

Recommendations for successful completion of the discipline (activity of higher education students during practical classes, completion of the required minimum of educational work ).

During the study of the discipline the student is obliged to :

- systematically attend practical classes and lectures;

- keep notes of practical classes;

- take an active part in work in the classroom;

- perform semester assignments.

Incentives and penalties .

Additional points for achievements in scientific, scientific-technical, social and sports activities are awarded to the student for such achievements in the semester .

Safety precautions .

The first lesson of the course will explain the basic principles of labor protection by conducting appropriate training. It is expected that everyone should know where the nearest evacuation exit is to the audience, where the fire extinguisher is, how to use it, and so on.

The order of information on changes in the Syllabus and others .

The syllabus of the discipline must be updated annually in all components, except for the mission (goals) and program learning outcomes.

The basis for updating the syllabus may be:

- initiative and proposals of the guarantor of the educational program and / or teachers of the discipline;

- initiative of applicants for higher education by applying to the guarantor of the educational program;

- initiative of employers;

- results of assessment of students' knowledge of the discipline;

- objective changes of infrastructural, personnel nature and / or other resource conditions of syllabus realization;

- the results of the obligatory survey of students about the impressions of studying the initial discipline.

**Evaluation policy**

Assessment system and requirements (types of control, control methods, forms of control, criteria for assessing the level of knowledge, conditions of admission to the final control )

The grade for the discipline is defined as the sum of grades of the student's current educational activity and grades of differentiated credit, which are set when assessing theoretical knowledge and practical skills.

***Assessment***of student learning activities is carried out at each practical lesson in accordance with the specific objectives of the topic, taking into account the level of preparation for the lesson during the student's independent work, practical work, protocol of practical training, as well as the quality of individual tasks. It is recommended to use types of objective (standardized) control of theoretical training of students and the acquisition of practical skills.

***Evaluation of current educational activities.***Assimilation of each topic is controlled in practical classes. Student performance is assessed by traditional grades "5", "4", "3", "2.

***Assessment of students' independent work.***Independent work of students, which is provided in the topic along with classroom work, is assessed during the current control of the topic in the relevant practical lesson. Assimilation of topics, which are submitted only for independent work, is controlled by differentiated credit.

***Differentiated credit***is carried out upon completion of the discipline at the last practical lesson. Students who have fully attended classroom classes in the discipline (or completed missed classes in the prescribed manner), performed all types of work provided by the curriculum, and during the study of the discipline scored no less than the minimum are admitted to the differentiated test .

**Differentiated credit** (DR) - is conducted by the teacher of the academic group in the last lesson of the discipline. Admission to DR is determined in points of current educational activity, namely: min - 70, max - 120 points. Directly DR is estimated from - 50 to - 80 points. The grade in the discipline is the sum of points for PND and DR in points from min - 120 to max - 200 and corresponds to the traditional assessment: "satisfactory", "good", "excellent" (Table 6).

Differentiated credit for the discipline or its part is a process during which the received for the course (semester) are checked:

- level of theoretical knowledge;

- development of creative thinking;

- skills of independent work;

- competencies - the ability to synthesize the acquired knowledge and apply them in solving practical problems.

Differentiated test conducted teacher group at the last lesson , and for conducting the examination set schedule session , approved the rector KhNMU, with indication of specific dates folding tests , which are designated by the limits of the semester.

**Recalculation of the average score for current activities in a multi-point scale**

**(for disciplines ending in differential credit)**

| 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 |

Evaluation of the results of the study of disciplines is carried out directly during the diff. offset. The grade in the discipline is defined as the sum of scores on IPA and credit and is min - 120 to max - 200. The correspondence of grades on a 200-point scale, four-point (national) scale and ECTS scale is given in the table.

**Criteria for assessing practical skills**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number of skills | «5» | «4» | «3» | The answer to the tickets of the practical part | For each practical skill the student receives from 5 to 8 points, which corresponds to:"5" - 8 points;"4" - 6.5 points;"3" - 5 points. |
| 1 | 8 | 6.5 | 5 |
| 2 | 8 | 6.5 | 5 |
| 3 | 8 | 6.5 | 5 |
| 4 | 8 | 6.5 | 5 |
| 5 | 8 | 6.5 | 5 |
|   | 40 | 32.5 | 25 |

Assessment of theoretical knowledge based on tickets drawn up at the department, which include all topics of the discipline.

**Criteria for assessing theoretical knowledge**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number of questions | «5» | «4» | «3» | Oral answer for tickets, which include the theoretical part of the discipline | For each answer the student receives from 5 to 8 points, which corresponds to:"5" - 8 points;"4" - 6.5 points;"3" - 5 points. |
| 1 | 8 | 6.5 | 5 |
| 2 | 8 | 6.5 | 5 |
| 3 | 8 | 6.5 | 5 |
| 4 | 8 | 6.5 | 5 |
| 5 | 8 | 6.5 | 5 |
|   | 40 | 32.5 | 25 |

**Correspondence of discipline assessment in points**

**evaluation in traditional assessments**

|  |  |
| --- | --- |
| Assessment of disciplinein points | Traditional assessmentfrom the discipline |
| 180–200 | «5» |
| 150–179 | «4» |
| 120–149 | «3» |

After completing the study of the discipline, the head teacher or teacher gives the student the number of points and the corresponding grade in the record book and fill in the information on the success of students in the discipline by form.

Assessment of theoretical knowledge, if practical skills are assessed by the criteria of "performed", "failed"

**Correspondence of estimates on a 200-point scale,**

**four-point (national) scale and ECTS scale**

|  |  |  |
| --- | --- | --- |
| Ratingon a 200-point scale | Assessment on the ECTS scale | Score forfour-point (national) scale |
| 180–200 | A | Perfectly |
| 160–179 | B | Fine |
| 150–159 | B | Fine |
| 130–149 | D | Satisfactorily |
| 120–129 | E | Satisfactorily |
| Less than 120 | F, Fx | Unsatisfactorily |

Elimination of academic debt (working off).

Completion of missed classes for any reason is mandatory for all students, regardless of funding sources.

Classes that were missed for good reasons are practiced free of charge.

Missing classes within one month after their admission are carried out without the permission of the dean (deputy dean) and without payment, regardless of the reasons for admission, to the research and teaching staff of the department in free time daily, except Sunday.

Regardless of the reasons for absences, students are required to complete missed classes before the exam session, except in cases of providing an individual schedule in the manner prescribed by the University .

All types of classes (except for consultations) in which the student was not present for a good reason are subject to free practice;

The practice of skipping lectures is carried out exclusively by preparing for the defense (interview with the lecturer) of the abstract on the topic of the lecture. The abstract should have the following structure : title page, plan, introduction, main part (sections, paragraphs and sub-paragraphs), conclusions, list of sources used, appendices (if necessary).

The abstract is submitted to the teacher of the academic group, who checks compliance with the requirements for its writing and submits it to the head of the department or lecturer. The head of the department or the lecturer appoints the term of defense of the abstract, but not later than one week from the date of submission of the abstract to the teacher.

With the permission of the head of the department it is allowed to prepare an abstract in electronic form with its subsequent defense in the general order.

Practice of practical classes is carried out by the next NPP of the department.

The mark on working off is entered by NPP of department in the journal of the account of working off of the missed employment (F.U-04). A positive assessment of the work is entered in the journal of the academic group (F. U-5.01.2.B).

Testing unsatisfactory grades received by the student in the classroom is mandatory. Testing of the unsatisfactory assessment received by the student at the current control is carried out free of charge .

Control questions, tasks for independent work

**Control questions:**

1. Definition of CM as a clinical discipline. The main directions of CM.

2. Topical issues of optimization of human motor activity at the present stage.

3. The concept of medical control. The purpose and objectives of drug control.

4. Organization of the CM service. Forms of work of the doctor with CM.

5. Features of medical examination of persons engaged in physical culture and sports.

6. Types of medical observations. Features of medical control for persons of different sexes and ages.

7. Assessment of the conditions, organization and methods of physical exercise.

8. Methods of complex medical examination of athletes and sportsmen, types of medical examinations.

9. Features of collecting general and sports history.

10. Features of the general medical examination of organs and systems.

11. Analysis and evaluation of percussion and auscultation data of athletes' hearts. Physiological criteria of fitness.

12. Definition of the term "physical development". Factors that determine a person's physical development.

13. Methods of research of physical development and condition of the musculoskeletal system (somatoscopy and anthropometry).

14. Methods of assessing physical development (standards, anthropological profile, indices, etc.).

15. Recommendations for harmonization or correction of physical development depending on its features.

16. The concept of functional tests and their significance in functional diagnostics. The main tasks of functional research.

17. Types of functional tests.

18. Functional tests with respiratory arrest ( Stange , Genchi-Sabraze ), loading and breathing tests. Methods of conducting and evaluation.

19. Functional tests with a change in body position in space (orthostatic, clinostatic ). Methods of conducting and evaluation.

20. Functional tests with standard physical activity.

21. Methods of conducting a functional test of Martin-Kushelevsky .

22. Types of response of the cardiovascular system to standard exercise.

23. Analysis of the results of a comprehensive medical examination. Medical opinion.

24. Division of persons engaged in physical culture into medical groups.

25. Age limits for admission of children to sports.

26. Approximate terms of resumption of physical culture and sports after illness.

27. The concept of general physical performance and tolerance to physical activity.

28. Direct and indirect methods of determining physical performance. Functional tests for effort (stress tests).

29. Indications and contraindications for the appointment of stress tests. Test conditions.

30. Clinical and functional signs of the threshold of tolerance to physical activity.

31. Methods and principles of calculating physical performance when performing the submaximal test PWC 170(for bicycle ergometry , steppergometry ).

32. Methods for determining MSCs. Calculation of the MSC index according to the nomogram of Astrand and the value of PWC 170.

33. Rufier's tests , Navakki , Harvard step test, Cooper's tests: methods of conducting and evaluation of test results.

34. Classes of physical condition.

35. The relationship of physical performance with health indicators.

36. The concept of "quantity" of physical (somatic) human health.

37. "Adaptive" (VP Kaznacheeva and RM Baevsky ) and "energy" (GL Apanasenko ) concepts of determining the amount of health.

38. The concept of "biological age of man".

39. Express assessment of the level of physical health of the population during preventive examinations (according to GL Apanasenko , 1992). The concept of "safe health".

40. Differentiated recreational and health motor regimes in the practice of preventive medicine. Limit and training heart rate depending on physical condition.

41. General patterns of changes in the functional state of the organism under the influence of physical activity of varying intensity (insufficient, optimal, excessive).

42. Changes in circulatory function, respiration, blood system, excretion, digestion, immune and endocrine systems under the influence of optimal physical activity.

43. The concept of acute and chronic physical exertion.

44. Causes of pre-pathological conditions, diseases and injuries during physical culture and sports.

45. Risk of sudden death during physical culture and sports.

46. Acute pathological conditions (hepatic pain syndrome, gravitational shock, hypoglycemic state, etc.), causes, emergency care.

47. Overtraining , causes, stages of overtraining .

48. Heart rhythm disorders. Hyper- and hypotonic states.

49. Myocardial dystrophy due to chronic physical exertion, clinical picture, stages, treatment and prevention.

50. The concept of "physiological" and "pathological sports heart".

51. Chronic lesions and overexertion of the musculoskeletal system.

52. Diseases and lesions of the nervous system.

53. Diseases of the ear, throat, nose.

54. Diseases of the digestive system.

55. Diseases of the urinary organs.

56. Diseases and disorders of the endocrine system.

57. Physiological mechanisms of recovery processes.

58. Nutrition as a factor in recovery.

59. Medico-biological means of recovery and stimulation of physical performance.

60. Characteristics of biologically active substances.

61. Pharmacological means of prevention of fatigue and recovery of sports performance.

62. The use of hardening for disease prevention.

63. Classification of doping. Anabolic syndrome. Anti-doping control.

64. The concept of "physical rehabilitation". Means, forms and methods of FR. Periods and stages of FR.

65. Exercise - the main means of physical rehabilitation. Mechanisms of therapeutic action of physical exercises. Classification of physical exercises.

66. Indications and contraindications to the appointment of therapeutic gymnastics.

67. Modes of motor activity. Indications for the appointment of motor modes at the inpatient, sanatorium and outpatient stages of rehabilitation, their tasks and content.

68. Basics of therapeutic massage. Equipment and sanitary and hygienic requirements for the massage room.

69. Types of massage. Indications and contraindications to the appointment of massage. Mechanisms of therapeutic effect of massage on the body.

70. Basic massage techniques.

71. Indications and contraindications to the appointment of means of physical rehabilitation in diseases of the cardiovascular system.

72. Tasks and features of the FR technique for myocardial infarction with a list of special exercises.

73. Tasks and features of FR in ischemic heart disease with a list of special exercises.

74. Tasks and features of the method of FR in hypertension and hypotension with a list of special exercises.

75. Indications and contraindications to the appointment of physical rehabilitation for bronchopulmonary pathology.

76. Tasks and features of the method of FR in acute bronchitis and pneumonia with a list of special exercises.

77. Tasks and features of the method of FR in chronic bronchitis, bronchial asthma and pleurisy with a list of special exercises.

78. Indications and contraindications to the appointment of FR in diseases of the digestive system.

79. Tasks and features of the method of FR in chronic gastritis and peptic ulcer of the duodenum with a list of special exercises.

80. Indications and contraindications to the appointment of FR in kidney disease and metabolic disorders. Features of FR techniques for obesity and diabetes.

81. Indications and contraindications to the appointment of physical rehabilitation in surgery.

82. Tasks and features of the FR technique in the preoperative and postoperative periods during surgical interventions on the abdominal organs, depending on the motor mode and the course of the postoperative period with a list of special exercises.

83. Tasks and features of the FR technique in the preoperative and postoperative periods during surgical interventions on the organs of the thoracic cavity, depending on the motor mode and the course of the postoperative period with a list of special exercises.

84. Indications and contraindications to the use of FR in injuries of the musculoskeletal system.

85. Tasks and methods of physical rehabilitation depending on the period ( immobilization , post- immobilization , rehabilitation) and method of treatment. Justification of the choice of means and forms of FR.

86. Indications and contraindications to the use of FR in orthopedic disorders in children.

87. Features of the technique and special exercises for flat feet, posture disorders and scoliosis, depending on its degree.

88. Features of the technique and special exercises for congenital muscular curvature of the neck, congenital dislocation of the thigh.

89. Indications and contraindications to the use of physical rehabilitation in neurological diseases.

90. Tasks and features of the method of FR in acute cerebrovascular accident (stroke), position therapy, special exercises.

91. Features of the use of FR in closed and open brain injuries.

92. Modern technologies of physical rehabilitation of patients with cerebral palsy.

93. Indications and contraindications to the use of physical rehabilitation for diseases and injuries of the peripheral nervous system.

94. Features of restorative-compensatory therapy for neuritis of the facial nerve, special exercises.

95. Some methods of therapeutic gymnastics for neuritis of the ulnar and radial nerves, radiculitis.

96. Physical rehabilitation for traumatic spinal cord injuries.

97. Features of the method of using exercise for women with a normal pregnancy depending on the trimester.

98. Features of methods of application of physical exercises in childbirth and the postpartum period.

99. Indications and contraindications to the appointment of physical rehabilitation in gynecological practice.

100. Tasks and features of FR in chronic inflammatory diseases of the female genital organs, abnormalities of the uterus, menstrual disorders and functional urinary incontinence.

101. Features of physical education of infants.

102. Tasks and features of methods of therapeutic gymnastics in young children with acute pneumonia.

103. Tasks and features of methods of therapeutic gymnastics in young children with rickets and malnutrition.

**Tasks for independent work:**

1. Preparation of an abstract on topics for independent study.

2. Conducting an independent fragment of scientific research.

3. Search and development of educational and scientific-methodical resources on topics for independent study.

4. Preparation of a scientific report at a meeting of the scientific circle and / or scientific-student conference.

5. Participation in interuniversity and / or all-Ukrainian Olympiad in the discipline.

6. Preparation of scientific publications: abstracts from collections of scientific and practical conferences, collections of scientific papers, articles in professional scientific journals.

Rules for appealing the assessment

The student's appeal regarding the grade (number of points) received on the differentiated test in KhNMU must be submitted in person no later than the next working day after the announcement of the grade.

The appeal is considered no later than the next day after its submission in the presence of the student .

Additional questioning of the student when considering appeals is not allowed.

The procedure for filing and reviewing an appeal must be made public and communicated to the student no later than 7 days before the exams.

Head of the department, doctor of medicine, professor A.G. Istomin