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

**"non-drug methods of treatment and rehabilitation"**

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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 KhNMU on problems of therapeutic profile   Protocol from. "28" October 2020 № 2 Head \_\_\_\_\_\_\_\_\_\_\_\_ P.G. Kravchun   "28" 2020 October |

**non-drug methods of treatment and rehabilitation**

**1. Data on the teacher who teaches the discipline**

|  |  |
| --- | --- |
| Surname, patronymic of the teacher | Lutsenko Olena Volodymyrivna |
| Contact phone | +380502339310 |
| E-mail: | evlook@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 KhNMU, street Alexander Speyer, 4 by prior arrangement , [http://31.128.79.157:8083/mod/bigbluebuttonbn/view.php?id=27208](https://translate.google.com/translate?hl=ru&prev=_t&sl=uk&tl=en&u=http://31.128.79.157:8083/mod/bigbluebuttonbn/view.php%3Fid%3D27208) |
| Location | street Alexander Speyer, 4 |

**Information about the discipline**

1. **Description of the discipline**

|  |  |  |
| --- | --- | --- |
| **The name is still from the nicknames** | **Field of knowledge, direction of training, educational and qualification level** | **Characteristics of the discipline** |
| **full-time education** |
| **Number of credits -** | Training direction -**22 - "Healthcare"** | **Normative (optional)** |
| **The total number of grams of din - 90** | **Specialty: 222 -** "Medicine" | **Year of preparation:** |
| **6th** | **-** |
| **Semester** |
| **autumn** | **-** |
| **Lectures** |
| **Hours for full-time study: classroom - 30****independent work in the dent - 60** | Education level:**Master** | **6 years** | **-** |
| **Practical, seminar** |
| **24 years** | **-** |
| **Individual work** |
| **60 years** | **-** |
| **Individual tasks: -** |
| **Type of control: credit** |

*General characteristics of the discipline.*

Syllabus discipline "Non-medicament methods of treatment and rehabilitation" composed for educational and professional program Medicine second (master's) level, 222 specialty "Medicine".

*The role and place of discipline in the system of training.*

Non-medicament methods treatment and rehabilitation as an academic discipline is based on a study of students human anatomy, medical biology, medical and biological physics, physiology, pathophysiology, propaedeutic internal medicine, propaedeutic pediatrics and traumatology, physiotherapy exercises and sport medicine and integrated with these disciplines. This involves integrating the teaching of these disciplines and forms of ing skills to use knowledge from non-drug treatment and rehabilitation claim of further education and careers; teaches the use of non-drug treatment and rehabilitation in medical practice for the prevention of and for faster recovery, quality of life and disability in patients with various profiles; ensuring timely diagnosis and prevention of re d pathological changes or conditions that occur in the human body.

The subject of the discipline is the use of modern non-drug means and rehabilitation techniques in the treatment and restoration of motor activity, improving the functions of organs and systems and improving the quality of life.

Interdisciplinary connections: Discipline "Non-medicament treatment and reabil and Trays» studied in subjects profesiynooriyentovanoyi cycle training appropriate structural and logical scheme and curriculum based on disciplines: anatomy nation and us, physiology, pathological physiology, medical physics, medical biology, orthopedics and traumatology, neurology, surgery, medical rehabilitation, physiotherapy.

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

2.1. Purpose: to form in students a system of knowledge about non-drug treatments and rehabilitation, the rules of their use in various diseases and in limiting life and functioning.

2.2. Task:

Deep mastering by students of theoretical knowledge and practical skills from the course "Non-drug treatment and rehabilitation". The course takes into account and interprets the previous knowledge of students in medical-biological and special disciplines, provides the opportunity to use the acquired knowledge in the process of studying the following disciplines on the problems of physical rehabilitation, recreation and more.

**The tasks of studying the discipline follow from the set goal and are presented in the form of a list of general and professional competencies.**

|  |
| --- |
| **Program competencies** |
| Integral competenceAbility to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements. |
| General Competences (LC) - Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained- Ability to apply knowledge in practical situations- Knowledge and understanding of the subject area and understanding of professional activity- Ability to adapt and act in a new situation- Ability to make an informed decision; work in a team; interpersonal and sleep interaction skills- Ability to communicate in the state language both orally and in writing; spilkuv ability and tys foreign language- Skills in the use of information and communication technologies- Definiteness and persistence in terms of tasks and responsibilities- Ability to act socially responsibly and consciously- The desire to preserve the environment |
| Professional competencies (FC)- Ability to determine the required mode of work and rest, the nature of nutrition in the treatment of diseases- Ability to carry out medical and evacuation measures- The ability to plan and conduct sanitation, prevention and against a epidemic measures, including the infectious diseases- Ability to conduct a performance examination- Ability to keep medical records- Ability to conduct epidemiological and medical-statistical studies of public health; processing of state, social, economic and medical information- Ability to assess the impact of the environment, socio-economic and biological determinants on the health of the individual, family, population- Ability to analyze the activities of the doctor, unit, health care institution, to take measures to ensure the quality and safety of medical care and increase the efficiency of medical resources- The ability to conduct activities for the organization and integration of additional medical provision at tance to the population, and marketing of medical services |

**3. Discipline status:**

Discipline is a selective eye is held in a format that allows only trad and Nodal forms of classroom training;

**4. Teaching methods**

1. Verbal method.

2. Visual method.

3. Computer method.

4. Independent work with literary sources and the Internet

**5. Recommended literature**

1. Дмитриев В. С. Введение в адаптивную физическую реабилитацию: монография / В.С.Дмитриев –М.: ВНИИФК, 2001. –240 с.

2.Евсеев С. П. Адаптивная физическая культура / С. П.Евсеев, Л.В.Шапкова. – М.: Сове-тский спорт, 2004. – 240 с.

3. Лисовский В.А. Комплексная профилактика заболеваний и реабилитация больных и инвалидов / В.А.Лисовский, С.П.Евсеев, В.Ю.Голофеевский, А.Н.Мироненко. – М.: Советс-кий спорт, 2004. – 320 с.

4. Капанджи А. И. Фукнкциональная анатомия / А. И. Капанджи., 2009, в 3-х томах.

5. Класифікація і номенклатура ортезів на кінцівки та хребет / А. Д.Салєєва, Т. Є. Куд-рявцева, К. Я. Карпенко, О. Д. Чернишов. // Ортопедия, травматология и протезирование. – 2013. – С. 84–89.

6. Фарбер Б.С. Теоретические основы построения протезов нижних конечностей и кор-рекции движения. / Б.С.Фарбер, А.С.Витензон, И.Ш.Морейнис — М.: ЦНИИПП, 1994. — 645 с

7. http://www.who.int/classifications/icf/en/

8. https://www.ottobock.ru

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

The study provides preliminary discipline of mastering disciplines such as physical education, physical rehabilitation and sports medicine, anatomy, physiology, medical staff including on and Biological Physics **,**orthopedics and traumatology, neurology. Along with discipline "H e drug treatment and rehabilitation" study course "Organizational o s new family medicine", "palliative medicine", "Medical rehabilitation"

**7. Learning outcomes,**

As a result of studying the discipline "Non-drug methods of treatment and rehabilitation" the student must:

**Know:**

- major injuries and diseases that lead to limited functioning;

- classification of technical means of rehabilitation;

- individual rehabilitation program and the procedure for prescribing technical and other means of rehabilitation for adults and children;

- main types of prostheses and orthoses, indications for their purpose;

- means of transportation and rules of their choice;

- contraindications and restrictions for the use of certain technical means of rehabilitation;

- modern capabilities of robotic systems for treatment and rehabilitation;

- modern rehabilitation techniques.

**Be able to**:

- to select technical means of rehabilitation according to the broken functions;

- fill individual rehabilitation program in the "technical and other means, the e habilitation";

- select and regulate means of transportation;

- to give recommendations on equipping the housing with additional technical means of rehabilitation and aviation - handrails, lifts, ramps, etc.

- appoint a modern rehabilitation techniques with regard to the functionality of the item and to patients.

**8. The content of the discipline**

|  |  |
| --- | --- |
| **Names of sections of the discipline and topics** | **Number of hours** |
| **Form of study (full-time)** |
| **Total** | **Including** |
| **cure** | **Ave.** | **Lab** | **Ind** | **Wed.** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Topic 1. Introduction. The concept of it is a drug treatment and rehabilitation. | 6 | 1 | 2 | - | - | 3 |
| Topic 2. The main diseases and conditions that require technical means of treatment and rehabilitation. | 6 | 1 | 2 | - | - | 3 |
| Topic 3. Orthoses and orthosis systems. Classification. Rehabilitation Efe k ness. Areas of application. | 17 | 1 | 4 | - | - | 12 |
| Topic 4. Prostheses. Classification. | 17 | 1 | 4 | - | - | 12 |
| Topic 5. **From the**person for movement, aids for personal p in homosity, movement and lifting.  | 5 | 1 | 2 | - | - | 2 |
| Topic 6. Furniture and equipment. Cn is a touch on social means samoobsluhov in the bath and care. | 5 |   | 2 | - | - | 3 |
| Topic 7. Robotic systems for the restoration of motor functions | 9 | 1 | 2 | - | - | 6 |
| Topic 8. Simulators and therapeutic devices with biological feedback | 9 |   | 2 | - | - | 7 |
| Topic 9. Continuous passive movement and its application in rehabilitation treatment. | 8 |   | 2 | - | - | 6 |
| Topic 10. Some methods of non-medical treatment and rehabilitation (hydrokinesiotherapy, sling therapy, kinesiological taping, occupational therapy, mirror therapy) | 8 |   | 2 |   |   | 6 |
| **Total hours of discipline** | 90 | 6 | 24 | - | - | 60 |

**Lecture topics**

|  |  |  |
| --- | --- | --- |
| **№****s / n** | **Name topics** | **Number****hours** |
| 1 | Introduction. The concept of non-drug treatment and rehabilitation. | 1 |
| 2 | Major diseases and conditions that require technical means healing in the baths and rehabilitation. | 1 |
| 3 | Orthoses and orthosis systems. Classification. Rehabilitation efficiency. Areas of application. | 1 |
| 4 | Prostheses. Classification. | 1 |
| 5 | From theperson for movement, aids for personal mobility, n e movement and lifting.  | 1 |
| 6 | Robotic systems for the restoration of motor functions | 1 |
| 7 | Simulators and therapeutic devices with biological feedback | 1 |
| **Total lecture hours** | 10 |

**Topics of seminars**

There are no seminars according to the standard curriculum

**Topics of practical classes**

|  |  |  |
| --- | --- | --- |
| **№****s / n** | **Name topics** | **Number****hours** |
| 1 | Introduction. The concept of non-drug treatment and rehabilitation. | 2 |
| 2 | Major diseases and conditions that require technical means healing in the baths and rehabilitation. | 2 |
| 3 | Orthoses and orthosis systems. Classification. Rehabilitation efficiency. Areas of application. | 4 |
| 4 | Prostheses. Classification. | 4 |
| 5 | **From the**person for movement, aids for personal mobility, n e movement and lifting.  | 2 |
| 6 | Furniture and equipment. Special conditions for self-service and e o See. | 2 |
| 7 | Robotic systems for the restoration of motor functions | 2 |
| 8 | Simulators and therapeutic devices with biological feedback | 2 |
| 9 | Continuous passive motion and its application in regenerative medi district no. | 2 |
| 10 | Some methods of non-drug treatment and rehabilitation (hydro-kinesitherapy, sling therapy, kinesiological taping, occupational therapy, mirror therapy) | 2 |
| **Total hours of practical training** | 24 |

**Topics of laboratory classes**

There are no laboratory classes according to the standard curriculum

**9. Independent work**

|  |  |  |
| --- | --- | --- |
| **№****s / n** | **Name topics** | **Number****hours** |
| 1 | Introduction. The concept of non-drug treatment and rehabilitation. | 3 |
| 2 | Major diseases and conditions that require technical means healing in the baths and rehabilitation. | 3 |
| 3 | Orthoses and orthosis systems. Classification. Rehabilitation efficiency. Areas of application. | 12 |
| 4 | Prostheses. Classification. | 12 |
| 5 | **From the**person for movement, aids for personal mobility, n e movement and lifting.  | 2 |
| 6 | Furniture and equipment. Special conditions for self-service and e o See. | 3 |
| 7 | Robotic systems for the restoration of motor functions | 6 |
| 8 | Simulators and therapeutic devices with biological feedback | 7 |
| 9 | Continuous passive movement and its application in rehabilitation treatment. | 6 |
| 10 | Some methods of non-drug treatment and rehabilitation (hydro-kinesitherapy, sling therapy, kinesiological taping, occupational therapy, mirror therapy) | 6 |
| **Total hours of independent work** | 60 |

**Individual tasks**

There are no individual tasks according to the standard curriculum.

**Discipline policy and values**

Discipline requirements .

Written and homework should be done in full and on time if the student / s have questions, you can contact the teacher in person by teacher / -ka will provide the first practical lesson.

During the lecture, students are recommended to keep a syllabus and keep a sufficient level of silence. Asking questions to the lecturer is perfectly normal.

Practical training

Active participation in the discussion in the classroom, students /-ki should be prepared e e Talne understand the material, ask questions, express their views, dyskut in wool. 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 is expected to be interested e ness 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 miss a class, it is necessary to work (according to the schedule information booth department).

It is important for students to follow the rules of good behavior at the university. Etc. These and forks 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;

- inflict material and technical base of the university (spoil inventory, equipment n ing, furniture, walls, floors, clutter space and territory);

- shouting, screaming or listening to loud music in the classroom and even bullfighting at MF during class.

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 the modern European and 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. At first held information events on what is considered plagiarism and a corresponding  who carry out research and scientific inquiry.

Policy for people with special educational needs .

Organization of inclusive education in institutions of higher education shall be in accordance with post a new Cabinet of Ministers of Ukraine from 10.07.2009 number 635 "On approval authority and of inclusive education of persons with special needs in higher SALT and you."

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:

- regularly 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 evacuation exit is closest to the audience, where the fire extinguisher is, how they are used, and so on.

The procedure for informing about changes in the syllabus , etc.

Syllabus discipline required annually to update all of the computer at except mission (objectives) 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 from the study of the initial discipline.

**Evaluation policy**

Score discipline is defined as the sum of estimations of current educational activity stud e NTA exam and evaluation that are set in the assessment of theoretical knowledge and practical skills.

***Current control***student learning activities carried out in every practical and chnomu class according to specific objectives topic, given the level of preparation for zanya t cha during self-learning, the implementation of practical work, protocol design workshops, as well as the individual tasks. Rec at apply objective types (standardized) control theoretical pi d ■ Preparation students and learning 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 who re d seen in a theme next to audience work, estimated during current control of theme on the proper practice session. Learning topics submitted only independent Rob at one controlled with differentiated offset.

***Grade from the discipline***

The maximum number of points that a student can score for studying the discipline **-**200 points. The minimum number of points is 120.

***Assessment of individual student tasks***

The meeting of the department must approve the list of individual tasks (participation in reports at student conferences, profile competitions, preparation of analytical reviews with presentations with plagiarism) with the definition of the number of points for their implementation, which can be added as incentives ( **not more than 10)**

Points for individual tasks are accrued to the student once only as a commission (commission - head of the department, head teacher, group teacher) only if they are successfully completed and defended.

***Assessment of students' independent work***

Assimilation of topics that are submitted only for independent work is checked during the diff. offsets.

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

(for disciplines ending with a credit)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 4-point scale | 200-point scale |  | 4-point scale | 200-point scale |  | 4-point scale | 200-point scale |
| 5 | 200 | 4.22-4.23 | 169 | 3.45-3.46 | 138 |
| 4.97-4.99 | 199 | 4.19-4.21 | 168 | 3.42-3.44 | 137 |
| 4.95-4.96 | 198 | 4.17-4.18 | 167 | 3.4-3.41 | 136 |
| 4.92-4.94 | 197 | 4.14-4.16 | 166 | 3.37-3.39 | 135 |
| 4.9-4.91 | 196 | 4.12-4.13 | 165 | 3.35-3.36 | 134 |
| 4.87-4.89 | 195 | 4.09-4.11 | 164 | 3.32-3.34 | 133 |
| 4.85-4.86 | 194 | 4.07-4.08 | 163 | 3.3-3.31 | 132 |
| 4.82-4.84 | 193 | 4.04-4.06 | 162 | 3.27-3.29 | 131 |
| 4.8-4.81 | 192 | 4.02-4.03 | 161 | 3.25-3.26 | 130 |
| 4.77-4.79 | 191 | 3.99-4.01 | 160 | 3.22-3.24 | 129 |
| 4.75-4.76 | 190 | 3.97-3.98 | 159 | 3.2-3.21 | 128 |
| 4.72-4.74 | 189 | 3.94-3.96 | 158 | 3.17-3.19 | 127 |
| 4.7-4.71 | 188 | 3.92-3.93 | 157 | 3.15-3.16 | 126 |
| 4.67-4.69 | 187 | 3.89-3.91 | 156 | 3.12-3.14 | 125 |
| 4.65-4.66 | 186 | 3.87-3.88 | 155 | 3.1-3.11 | 124 |
| 4.62-4.64 | 185 | 3.84-3.86 | 154 | 3.07-3.09 | 123 |
| 4.6-4.61 | 184 | 3.82-3.83 | 153 | 3.05-3.06 | 122 |
| 4.57-4.59 | 183 | 3.79-3.81 | 152 | 3.02-3.04 | 121 |
| 4.54-4.56 | 182 | 3.77-3.78 | 151 | 3-3.01 | 120 |
| 4.52-4.53 | 181 | 3.74-3.76 | 150 | **Less than 3** | **Ned at sufficiently** |
| 4.5-4.51 | 180 | 3.72-3.73 | 149 |  |  |  |  |
| 4.47-4.49 | 179 | 3.7-3.71 | 148 |  |  |
| 4.45-4.46 | 178 | 3.67-3.69 | 147 |  |  |  |  |
| 4.42-4.44 | 177 | 3.65-3.66 | 146 |  |  |  |
| 4.4-4.41 | 176 | 3.62-3.64 | 145 |  |  |  |  |
| 4.37-4.39 | 175 | 3.6-3.61 | 144 |  |  |  |  |
| 4.35-4.36 | 174 | 3.57-3.59 | 143 |  |  |  |  |
| 4.32-4.34 | 173 | 3.55-3.56 | 142 |  |  |  |  |
| 4.3-4.31 | 172 | 3.52-3.54 | 141 |  |  |  |  |
| 4.27-4.29 | 171 | 3.5-3.51 | 140 |  |  |  |  |
| 4.24-4.26 | 170 | 3.47-3.49 | 139 |  |  |  |  |

The credit for the disciplines, the study of which has been completed, is conducted by the teacher of the academic group at the last lesson in the discipline and provides for the consideration of IPA and verification of mastering all topics in the discipline. The grade is determined in points from 120 to 200 and marked - "credited", "not credited".

**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 studying the discipline head teacher or teacher puts the student community b bone points and corresponding evaluation in gradebook information and fill cent success in dents in the discipline form.

Assessment of theoretical knowledge, if practical skills are assessed by the criteria of "in and out ", "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 | C | 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.

Testing of missed classes within one month after admission, doing be without Dean (Vice-dean) and without payment, for any reason, etc. at start-up, research and educational workers relevant department in free time district but 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 (sleeping in a conversation with the lecturer) of the abstract on the topic of the lecture. Essay must be the village structuru title page, plan, introduction, main part (chapters, paragraphs and subparagraphs) conclusions Use list with  source application (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. Head of Department e DRI or lecturer appointed for protecting the abstract, but not later than one week from the moment the teacher lecture.

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, laboratory, seminar 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 testing recorded log at least remedy the academic work group (F. In-5.01.2.B).

Testing unsatisfactory grades received by the student in the classroom is mandatory. Testing of a student received during the current unsatisfactory control of these n ki is free .

**Control questions, tasks for independent work**

1. What about non-drug treatments and rehabilitation?
2. Define TKR.
3. What categories of the population are entitled to TOR?
4. What is an Individual Rehabilitation Program?
5. In what term the Individual rehabilitation program should be made?
6. Who determines the need for the appointment of certain TOR?
7. What conditions and diseases most often require non-drug treatment and rehabilitation?
8. Name the typical motor disorders in stroke.
9. What are the typical complications of diabetes that lead to impaired motor function?
10. Typical disorders in children with cerebral palsy requiring correction via EMM or deputy at ments robotic systems or systems with biofeedback.
11. Typical dysfunctions in spinal injuries.
12. What changes in posture and movements are formed during amputation of limbs?
13. Characteristics of motor disorders in injuries and surgical interventions on the musculoskeletal system.
14. Congenital malformations of the limbs and their possible correction using non-drags treatments and rehabilitation.
15. Scoliosis and methods of its non-drug correction depending on the clinical picture.
16. Define an orthosis.
17. What classifications of orthoses exist?
18. What is the purpose of orthoses and orthosis systems?
19. Name the disorders of motor functions and diseases in which it is advisable to use orthoses.
20. What is the function of spinal orthoses?
21. What is the function of limb orthoses?
22. What is a limb prosthesis?
23. What tasks should a limb prosthesis perform?
24. What requirements must meet the limb prosthesis?
25. Classification of limb prostheses.
26. What are the contraindications to prosthetics?
27. What is a functional class of prosthesis?
28. On what grounds are prostheses of the upper extremity divided?
29. The main differences functional, working and cosmetic prosthetic upper end in the pocket.
30. Modern technologies in upper limb prosthetics.
31. What designs of lower limb prostheses are used depending on the level of amputation ?.
32. What are the requirements for a lower limb prosthesis?
33. What exercises should be used for quality movement on the prosthesis ?.
34. What levels of assimilation of walking on a prosthesis are distinguished?
35. What are the aids for personal mobility, movement and lifting ?
36. How to choose the right type and height of cane or crutches?
37. What are the requirements for the right choice of crutches and walkers?
38. What types of wheelchairs are there?
39. By what parameters do you choose wheelchairs?
40. What about furniture and equipment for people with disabilities?
41. What devices for additional equipment can be installed in the premises where a person with a disability is?
42. What about robotic systems of restoration and correction of motor functions?
43. What exercises are possible to perform in a robotic system?
44. What are the limitations of robotic systems?
45. What is biological feedback?
46. What are the functions of the body may adjust by means of biological Countdown so his bond?
47. Areas of application of biological feedback systems.
48. What is the purpose of continuous passive motion?
49. Indications for the use of continuous passive movement.
50. What is hydrokinesiotherapy?
51. The mechanism of therapeutic effect of hydrokinesiotherapy
52. Contraindications to the use of hydrokinesiotherapy
53. What is sling therapy?
54. In what conditions and diseases is the use of sling therapy appropriate?
55. Types of kinesiological taping.
56. Rules and methods of applying kinesiological tape.
57. What is occupational therapy?
58. In what conditions and diseases is the use of occupational therapy indicated?
59. Features of application of occupational therapy in childhood.
60. Features of occupational therapy in adults.
61. What is mirror therapy?
62. In what cases it is expedient to use mirror therapy?

**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 processing of educational, scientific and methodological resources for topics for well with 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: abstract collections of scientific conferences, scientific papers and articles in professional journals.

**Rules for appealing the assessment**

The student's appeal against the grade (number of points) received on the differentiated test in KNMU 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