

**Odessa National Medical University**  
**Medical faculty №2**  
**Department of Physical Rehabilitation, Sports Medicine, Physical Training and Valeology**  
**SYLLABUS OF ACADEMIC DISCIPLINE**  
**«PHYSICAL REHABILITATION»**

<b>Course scope</b>	Faculty of Stomatology - 1.0 ECTS credits, 30 hours.
<b>Semester, year of study</b>	VII- VIII semester , IV year
<b>Days, time, location</b>	According to the schedule.
<b>Teachers</b>	1. Iushkovska Olga. Head of the department, doctor of medical sciences, professor <a href="mailto:med_rehab@ukr.net">med_rehab@ukr.net</a> 2. Kuhar Natalia. Ph.D., Associate Professor <a href="mailto:kuhar_nataliya@ukr.net">kuhar_nataliya@ukr.net</a> 3. Plakida Alexander. PhD., Associate Professor. Responsible for international work, scientific work and scientific student team of the department. <a href="mailto:aplakida01@gmail.com">aplakida01@gmail.com</a> 4. Semenenko Oleg. Assistant. Responsible for the postgraduate work of the department. <a href="mailto:osemenenko447@gmail.com">osemenenko447@gmail.com</a> 5. Filonenko Alyona. Assistant <a href="mailto:alena.filonenko@gmail.com">alena.filonenko@gmail.com</a> 6. Shahnazaryan Kamo. Assistant. <a href="mailto:kamsax@rambler.ru">kamsax@rambler.ru</a>
<b>Contact numbers</b>	+380(48) 723-05-68, +380 (48) 728-50-30,
<b>E-mail</b>	<a href="mailto:sportmed@onmedu.edu.ua">sportmed@onmedu.edu.ua</a>
<b>Teacher's workplace</b>	Department of Physical Rehabilitation, Sports Medicine, Physical Training and Valeology, address: Odessa, street Olgievskaya, 4-A.
<b>Counseling for students</b>	Thursday - 15.00 - 17.00. Saturday - 9.00 - 12.00. Conducted by the next teacher according to the schedule of shifts. (For the period of quarantine - by E-mail of the department: <a href="mailto:sportmed@onmedu.edu.ua">sportmed@onmedu.edu.ua</a> , as well as using Viber, Facebook and Telegram messengers and the use of the Zoom platform and / or Microsoft Teams).

### COMMUNICATION

The system of organization of classes, is carried out with the help of E-mail department: [sportmed@onmedu.edu.ua](mailto:sportmed@onmedu.edu.ua), as well as with the help of messengers Viber, Facebook and Telegram and the use of the platform Zoom and / or Microsoft Teams.

### COURSE ANOTATION

**"Physical rehabilitation" as an academic discipline** is the use of physical exercises and natural factors in the complex process of restoring health, physical condition and performance of patients and people with disabilities for therapeutic and preventive purposes. It is an integral part of medical rehabilitation and applies to all of its periods and stages. Physical rehabilitation is used in social and professional rehabilitation. Its means are: therapeutic physical training and massage, physiotherapy, mechanotherapy, etc. The prescription of means of physical rehabilitation, the sequence of application of its forms and methods are determined by the nature of the course of the disease, the general condition of the patient, the period and stage of recovery, and the motor regimen.

**Sports medicine** is a clinical discipline that studies the positive and negative effects of physical activity of varying intensity (from hypo- to hyperdynamic) on the body of healthy and sick people. Sports medicine promotes the rational use of physical culture and sports for the harmonious development of man, strengthening his health, increasing general and special performance, disease prevention.

**Course prerequisites:** based on the study by students of the Ukrainian language (in the professional direction), normal anatomy, physiology, pathological anatomy, pathophysiology,

pharmacology, biochemistry, pediatric propaedeutic, general surgery, clinical anatomy and operative surgery, medical psychology, internal medicine propaedeutic, traumatology and orthopedics, obstetrics and gynecology, neurology, emergency and emergency medical care.

**Post requisites of the course:** provides a foundation for students to study manual therapy, cosmetology, current problems of physiotherapy, balneology and rehabilitation, information technology in medicine, and the fundamentals of reflexology.

**The purpose of teaching the academic discipline "Physical rehabilitation"** is: the formation of students of a holistic view of the possibilities, forms and methods of medical control in physical therapy, the understanding of the importance of the timely application of the means of physical therapy in the complex treatment and rehabilitation of medical patients, as well as in the prevention of professional diseases in doctors.

**The main task of the study of "Sports medicine"** is to provide students with the necessary knowledge, abilities and skills to use the basic forms, means and methods of sports medicine in their future practice on the basis of fundamental knowledge obtained during the passage of medical, biological and clinical disciplines.

**The purpose of "Physical rehabilitation"** course is to teach students to use the means of physical culture in their practical activity for the earliest restoration of functions impaired during disease or damage, improvement of physical efficiency, prevention of the consequences of the pathological process.

#### **Expected results.**

**As a result of studying the discipline, higher education seekers must**

#### ***know:***

- Specificity, approaches according to the bio-psycho-social model;
- Physical rehabilitation (recovery and compensation) strategies and their pathophysiological basis, rehabilitation prognosis;
- principles of patient centrality in physical rehabilitation and sports medicine;
- principles of physical rehabilitation organization;
- principles of goal-setting in physical rehabilitation and sports medicine;
- the rights, duties and responsibilities of a physical rehabilitation and sports medicine physician;
- rehabilitation technologies in sports medicine;
- the principles of creating and applying an individual physical rehabilitation program;
- the meaning and be able to apply the principles of effective cooperation with other health care professionals, particularly specialists in physical rehabilitation and sports medicine;
- regulations in the health care system, especially in the area of protection of patients' rights;
- principles of evidence-based medicine, particularly the principles of evidence-based medicine in physical rehabilitation and sports medicine;
- principles of medical ethics and deontology;
- current legislation and regulatory documents governing the activities of health care authorities and institutions;
- basics of law in medicine;
- performance indicators of health care institution, rehabilitation institution, dispensary supervision and medical supervision;
- general principles of diagnostics and treatment of diseases of internal organs, nervous system, principles of treatment of traumatic injuries in children and adults,
- principles and basic medical problems of transitional periods of human life;
- current legislation and principles of medical and social expertise;
- forms and methods of health education among the population;
- rules of registration of medical, rehabilitation and medico-expert documentation;
- advanced information and Internet technologies;
- modern scientific literature and scientific and practical periodicals on specialty, methods of its analysis and generalization.

#### ***be able to:***

- identify and properly document necessary patient information to inform and incorporate

the opinions of peers and other experts;

- assess and adequately respond to individual needs and changes in the health status of patients;

- to be guided by the current legislation of Ukraine on health care and regulations governing the activities of health care authorities and institutions, the organization of physical rehabilitation and sports medicine;

- improve the physical, mental functioning and activity of patients, contribute to improving their quality of life and ensure full social functioning (participation). If necessary, directly treat the patient's corresponding disease, receive rehabilitation assistance. In the case of prolonged symptoms of the disease, functioning, activity and participation must be improved using specialized methods and techniques within the framework of physical rehabilitation;

- provide emergency medical care for acute conditions, particularly those that may arise during physical rehabilitation;

- work closely with allied professionals and services;

- participate in the monitoring of public health and promote the dissemination of knowledge on the organization of physical rehabilitation among the population;

- observe the principles of medical deontology;

- plan their work and analyze their results;

- keep medical and rehabilitation documentation. Continuously improve their professional level.

## **COURSE DESCRIPTION**

### **Forms and methods of teaching**

The course will be set out in the form of lectures (4 hours), practical classes (16 hours), students' independent work (10 hours).

During the teaching of the discipline the following teaching methods will be used: verbal (lecture, conversation); visual (multimedia presentations, diagrams, tables); practical classes using dummies; work with the textbook (students' independent work), performance of individual independent tasks.

### **The content of the discipline**

#### **1. Sports medicine**

**Theme 1:** Modern understanding of physical rehabilitation and sports medicine. Methods of complex medical examination during physical activity. Research and assessment of human physical development.

**Theme 2:** Research and assessment of functional capabilities of the human body. Examination of the functional state of the dento-alveolar system in a dental clinic. Doctor's report.

#### **2. Physical rehabilitation.**

**Theme 3 -** General principles of physical rehabilitation in dental patients. Foundations of therapeutic massage in dentistry.

**Theme 4.** Physical rehabilitation for purulent inflammatory processes in the maxillofacial area. Physical rehabilitation for neuritis of the facial and trigeminal nerves.

**Theme 5.** Physical rehabilitation for jaw fractures and temporomandibular joint disorders and contractures.

**Theme 6.** Physical rehabilitation for reconstructive and plastic surgeries on maxillofacial area.

**Theme 7.** Physical rehabilitation for bite disorders and congenital anomalies of the jaw development in children.

**Theme 8:** Application of the means of physical rehabilitation for the prevention and treatment of professional diseases in dentists. Features of therapeutic massage in dentistry. Credit.

### **List of recommended reading**

#### **Main literature:**

1. Физическая и реабилитационная медицина: национальное руководство /под редакцией Г.Н. Пономаренко. – М.: ГЭОТАР – Медиа, 2016. – 688 с.

2. Физическая реабилитация: методические рекомендации к практическим занятиям для студентов 4 курса медицинского факультета) /О.Г. Юшковская, Н.Н. Кухар, А.Л. Плакида – Одеса: «Полиграф», 2016. – 160 с.
3. Фізична реабілітація, спортивна медицина: підручник для студентів вищих мед. навч. закладів / В.В. Абрамов, В.В. Клапчук, О.Б. Неханевич [та ін.]: за ред. професора В.В. Абрамова та доцента О.Л. Смирнової. – Дніпропетровськ, Журфонд, 2014. – 456 с.: іл. 79.
4. Основы физической реабилитации: учебник для студентов вузов / О.К. Марченко. – К.: Олимп. лит., 2012. – 528 с.
5. Фізична реабілітація хворих на ішемічну хворобу серця. Юшковська О.Г. Монографія /Одес. держ. мед. ун-т – Одеса: – 2010. – 224 с.
6. Фізична реабілітація: підручник /В.М. Мухіна – 3-тє вид., переробл. та доповн. – К.: Олімп. Л-ра, 2009. – 488 с.: іл..
7. Марченко О. К. Фізична реабілітація хворих із травмами й захворюваннями нервової системи: Навч. посібник. Олімпійська література, 2006. – 196 с.
8. European Physical and Rehabilitation Medicine Bodies Alliance. White Book on Physical and Rehabilitation Medicine in Europe. Eur J Phys Rehabil Med 2018. - Vol.54(2). – P.125-321.
9. World Health Organization. Rehabilitation 2030: a call for action: Meeting report [Internet]. WHO; 2017. Available from: <http://www.who.int/disabilities/care/rehab-2030/en/>
10. WHO WHO global disability action plan 2014-2021 [Internet]. WHO. [cited 2014 Oct 21]. Available from: <http://www.who.int/disabilities/actionplan/en/>
11. A position paper on physical & rehabilitation medicine programmes in post-acute settings / Ward A., Gutenbrunner C., Giustini A., Delarque A., Fialka-Moser V., Kiekens C., Berteau M., Christodoulou N. // J Rehabil Med 2012; (44): 289–298.
12. R.L. Braddom. Physical Medicine and Rehabilitation / R.L. Braddom. – England: Elsevier Science, 2011. – 1536 с.
13. WHO World Report on Disability [Internet]. WHO. [cited 2014 Nov 8]. Available from: [http://www.who.int/disabilities/world\\_report/2011/en/](http://www.who.int/disabilities/world_report/2011/en/)
14. European Union of Medical Specialists (UEMS) Section of Physical & Rehabilitation Medicine: A position paper on physical and rehabilitation medicine in acute settings./ Ward A., Gutenbrunner C., Damjan H., Giustini A., Delarque A. // J Rehabil Med. – 2010 (42): P.417–424.
15. DeLisa's. Physical Medicine and Rehabilitation / DeLisa's. – Lippincott Williams & Wilkins; Fifth, North Am, 2010. – 2432 с.

#### **Additional literature:**

1. Спортивная медицина: Учебник для студентов ВУЗ физического воспитания и спорта / Л.Я-Г. Шахлина, Б.Г. Коган, Т.А. Терещенко, В.П. Тищенко, С.М. Футорный; под ред. Л.Я-Г. Шахлиной. – Киев: Наукова думка, 2016. – 452 с.: ил.
2. Физическая терапия в реабилитации больных ишемической болезнью сердца: метод. рекомендации. – М.: НОРФРМ, 2015. – 40 с.
3. Епифанов В.А. Медицинская реабилитация /В.А. Епифанов, Е.Е. Ачкасова – М.: ГЭОТАР-Медиа, 2015. – 672 с.
4. Пономаренко Г.Н. Основы молекулярной физиотерапии. /Г.Н. Пономаренко, В.С. Улащик – СПб., 2014. – 288 с.
5. Самостійні заняття з фізичного виховання. Навчальний посібник / О.Г. Юшковська, Т.Ю. Круцевич, В.Ю. Середовська, Г.В. Безверхня. – Одеса: Одес. Нац. Мед. ун-т. – 302 с. – (Б-ка студента-медика).
6. Физиотерапия. Классический курс /под ред. С.Б. Портера: пер. с англ. под ред. Г.Н. Пономаренко. – СПб.: Человек, 2014. – 761 с.
7. Организация физиотерапевтической помощи: методическое пособие / под ред. Г.Н. Пономаренко. – СПб., 2013. – 136 с.

8. Пономаренко Г.Н. Физиотерапевтическая помощь в медицинских организациях – СПб., 2012.
9. Пономаренко Г.Н. Физические методы лечения: справочник. – 4-е изд., перераб. и доп. – СПб., 2011.
10. Улащик В.С. Общая физиотерапия: учебник /В.С. Улащик И.В. Лукомский – Минск, 2010.
11. Шиман А.Г. Пунктурная физиотерапия заболеваний нервной системы /А.Г. Шиман, Г.Н. Пономаренко, С.Д. Шоферова – 2-е изд., испр. и доп. – СПб.: Балтика, 2005. – 96 с.
12. Эноки Р.М. Основы кинезологии. – Киев: Олимпийская литература, 2000.
13. Gutenbrunner С., Tederko P., Grabljevec K., Nugraha B., Responding to the World Health Organization Global Disability Action Plan in Ukraine: developing a National Disability, Health and Rehabilitation Plan J Rehabil Med. – 2018 (50). – P.338–341

### **Informational resources**

- <http://www.moz.gov.ua> – Офіційний сайт Міністерства охорони здоров'я України.
- <http://www.president.gov.ua/documents/6782015-19605> - Указ Президента України «Про активізацію роботи щодо забезпечення прав людей з інвалідністю»
- <https://www.kmu.gov.ua/ua/npas/pro-zatverdzhennya-planu-zahodiv-iz-vprovadzhennya-v-ukrayini-mizhnarodnoyi-klasifikaciyi-funkcionuvannya-obmezhen-zhittyediyalnosti-ta-zdorovya-ta-mizhnarodnoyi-klasifikaciyi-funkcionuvannya-obmezhen-zhittyediyalnosti-ta-zdorovya-ditej-i-pidlitkiv> - Розпорядження Кабінету Міністрів України від 27.12.2017 №1008-р «Про затвердження плану заходів із впровадження в Україні Міжнародної класифікації функціонування, обмежень життєдіяльності та здоров'я та Міжнародної класифікації функціонування, обмежень життєдіяльності та здоров'я дітей і підлітків»
- <http://zakon5.rada.gov.ua/laws/show/2801-12>- Закон України «Основи законодавства України про охорону здоров'я»
- <http://zakon3.rada.gov.ua/laws/show/2961-15> - Закон України «Про реабілітацію осіб з інвалідністю в Україні»
- <http://zakon2.rada.gov.ua/laws/show/3808-12>- Закон України «Про фізичну культуру і спорт».
- <http://zakon4.rada.gov.ua/laws/show/1060-12> - Закон України «Про освіту».
- <http://www.nbuv.gov.ua/> – Національна бібліотека України імені В.І.Вернадського.
- <http://library.gov.ua/> – Національна наукова медична бібліотека України.
- <http://osvita.ua/vnz/> – Вища освіта в Україні.
- <http://metodportal.com/taxonomy/term/35>–Методичний портал «Фізичне виховання».
- <http://www.tmfv.com.ua/> – журнал «Теорія та методика фізичного виховання».

### **EVALUATION CRITERIA**

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

Independent work of students, which is provided in each topic, along with the classroom work, is evaluated during the current control topics in the form of theoretical testing.

#### **Assessment of individual assignments of the student**

Completion of an individual assignment is credited to the student only after successfully defending it in the practical session. Depending on the quality of performance and defense of the individual task the student may receive the traditional grades of "5", "4", "3" and "2".

#### **The current control**

The current control involves 100% delivery of control standards and tests from independent work (DLS), the students of the group with the obligatory assessment of all components of classes - test control, control standards. At each practical lesson, the instructor evaluates each student on a four-point system "5-4-3-2".

- "**excellent**" is given to a student who systematically worked during the semester, showed

versatile and deep knowledge of the program material, is able to successfully complete the tasks provided for by the program, has mastered the content of the main and additional literature, realized the relationship of individual sections of the discipline, their importance for the future profession, discovered creativity in understanding and using educational and program material, showed the ability to independently update and replenish knowledge; level of competence - high (creative)

- **"good"** is given to a student who has discovered a complete knowledge of educational and program material, successfully fulfills the tasks provided for by the program, has mastered the basic literature recommended by the program, has shown a sufficient level of knowledge in the discipline and is capable of independently updating and updating them in the course of further education and professional activity; level of competence - sufficient (constructive and variable)

- **"satisfactory"** is given to a student who has discovered knowledge of the basic educational and program material in the amount necessary for further study and subsequent work in the profession, copes with the tasks provided for in the program, made some mistakes in the answers on the exam and when performing exam tasks, but possesses the necessary knowledge to overcome the mistakes made under the guidance of a scientific and pedagogical worker; competence level - average (reproductive)

- **"unsatisfactory"** is given to a student who did not reveal sufficient knowledge of the main educational and program material, made fundamental mistakes in performing the tasks provided for in the program, cannot use knowledge in further training without the help of a teacher, could not master the skills of independent work; the level of competence is low (receptive-productive).

#### **Individual assignment assessment**

The completion of an individual assignment is credited to a student only after his successful defense in a practical lesson. Depending on the quality of performance and defense for an individual task, a student can receive traditional marks "5", "4" and "3".

The number of points for individual student work does not exceed 4 points. Points for individual work are added to the total points for the student's current academic activity. Points for individual work can be received by students who wrote and reported abstracts from the recommended topics using additional literature and won prizes for participating in the Olympiad in the discipline among students of their university and higher educational institutions in Ukraine

**The final control of the mastery of the discipline in the form of credits is assessed on a two-point scale:**

- **"passed"** is given to a student who has completed the curriculum of the discipline, has no academic debt;

level of competence - high (creative)

- **"not passed"** is given to a student who has not completed the curriculum of the discipline, has academic debt (average score below 3.0 and / or missing classes), the level of competence is low (receptive-productive).

#### **Assessment of academic progress**

Assessment of student progress in the discipline is a rating and exhibited on a multi-point scale as the sum of points for the current control of knowledge and has a definition of the system of UST and the scale adopted in Ukraine.

<b>The total amount of points in the discipline for all types of learning activities</b>	<b>National Scale Score</b>
From 170 to 200 points	Excellent (A) (excellent performance with only a small number of errors)
From 155 до 169 points	Very good (B) (above average with several errors)
From 140 до 154 points	Good (C) (generally correct execution with a certain number of significant errors)
125-139	Satisfactory (D) (not bad, but with a significant number of shortcomings)
<b>111 (min) - 124</b>	Enough (E) (performance meets minimum criteria)
60-110	Unsatisfactory (FX) (reusable)

**Credit**

Credit is awarded to students who have fully attended classroom training sessions in the discipline, provided by the curriculum and when assessing each control test, received marks on the traditional 4-point scale (2,3,4,5) and have completed all types of work provided by the curriculum. Students who have a score on the traditional 4-point scale (2) and have not completed all types of work required by the curriculum do not receive credit. Students who have not completed all types of work provided by the curriculum for a valid reason are made adjustments to the individual curriculum and allowed to work off the academic debt by a certain deadline. At the end of the study of the discipline current progress is calculated as the average score of all scores received by the student on a traditional scale, rounded to two (2) decimal places after the decimal point.

**Converting a traditional discipline grade to a multi-point scale**

Of special methodological importance is the question of converting the result of the student's study of the discipline on a 200-point scale and further ranking on a rating scale (ECTS). It is necessary for implementation of academic mobility of students, providing a student with an opportunity to continue training in this discipline, at another university or in another country. The resulting average score for the discipline allows for conversion to a grade on a 200-point scale.

**Example:**

Average score for the discipline	Score on a 200-point scale
5,0	200
4,38	X

$$X = (4,38 \times 200) : 5 = 175 \text{ points}$$

**COURSE POLICY****Deadline and recompilation policy****Deadline and retake policy**

All missed classes must be completed. A student who has missing practical classes must handle them independently (without receiving points!).

The student prepares answers to questions on the topic of the missed lesson, which are indicated in the methodological developments of the department. During independent work, the student must prepare the topics of the classes provided for by the methodological developments of the department.

Some, the most difficult and incomprehensible for the student questions can be asked to the teacher at the beginning of the missed lesson.

**During the practicum, the student must have:**

- lecture notes;
- diagrams, drawings, provided in the process of independent work of the student;
- short outline, which reflects the basic factual material of the topic.

**Academic Virtue Policy**

- independent performance of all works, tasks, forms of control, provided by the working program of the discipline "Physical rehabilitation"
- reference to the sources of information when using ideas, developments, statements, information;
- observing the rights of the legislation on copyright and related rights;
- providing reliable information about the results of own educational (scientific, creative) activities, used research methods and information sources.

**Attendance and Lateness Policy**

Attendance in all types of classes is mandatory. Tardiness for all types of classes is prohibited.

**Mobile devices**

During all types of classroom activities (lectures, practical classes), as well as control activities (final practical classes, exams), the use of micro headphones, phones, smartphones, tablets is prohibited.

During distance learning in conditions of special epidemic regime (adaptive quarantine), Zoom and / or Microsoft Teams platforms are used.

**Behavior in the classroom**

Behavior in the classroom during all types of training sessions (Lectures, practical sessions) must be appropriate for a medical student.

Teachers and students should be in medical gowns and caps, during full-time classes in conditions of special epidemic regime (Adaptive Quarantine) - in properly dressed protective medical masks or respirators.