# DANYLO HALYCKY LVIV NATIONAL MEDICAL UNIVERSITY

**Department of Physical Training and Sports Medicine**

APPROVED
t.p.r. first vice-rector on scientific and pedagogical work D.Halycky LNMU
_____ I.I.Solonynko
"_____" _____ 2022

## WORKING STUDYING PROGRAM OF EDUCATIONAL DISCIPLINE
**Physical Rehabilitation and Sports Medicine**
**Training of specialists of the second (master's) level of higher education in the field of knowledge 22 "Health care"**
**Specialty 221 "Dentistry"**

Discussed and approved
on meeting of department
Physical training and sports medicine
Protocol №15 from "19" 04 2022
Head of the department
commission
_____

Approved
profiled methodical commission
on Humanities
Protocol №2 from "05" 05 2022
Chairman of the methodical commision
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**2022**

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## INTRODUCTION

**OK 22 "Physical rehabilitation and Sport medicine"** created in accordance with the higher education standard of Ukraine (next- Standart) **of the second master's level.**

Knowledge section **22 "Health care"**

Specialty **221 Dentistry**

Educational program **Master of dentistry**

### 1. General section

Work program of discipline "Physical rehabilitation and sports medicine" prepared in accordance with the "Regulations on the organization of educational process in Danylo Halycky Lviv National medical university, approved by the Academic Council of the University 02/18/2015 p., Record №1-BP and pursuant order in Danylo Halycky Lviv National medical university from 24.04.2015 № 1229-with "On introduction of the new curriculum undergraduate training in the specialty" Dentistry ".

The work program of the subject "Physical Rehabilitation and Sports Medicine" compiled for the specialty 7.110106 "Dentistry" field of study in 1101 "Medicine," according to educational qualification characteristics (EQC) and educational and professional programs (EPP) training educational qualification "Specialist "qualification" dentist "in higher medical educational institutions of Ukraine IV level of accreditation, approved by the MES of Ukraine from 16.04.03 № 239 and from 28.07.03 № 504, and according to the new curriculum MoH Ukraine that is designed on the principles of the European credit Transfer system (ECTS) and approved by the MOH of Ukraine of 07.12.2009 p. № 929 of 08.07.2010 and. № 541.

The program is prepared in accordance with the "Guidelines for the development of educational disciplines" (MOH of Ukraine of 12.10.2004., № 492).

Physical rehabilitation and sports medicine as an academic discipline is based on studying by students of anatomy, physiology, pathophysiology, propaedeutics internal medicine, prosthetic dentistry; ensure consistency and correlation to the prevention of dental diseases, surgical dentistry, prosthetic dentistry, neurology, neurodentistry and other subjects of the curriculum, which involves integration of teaching with these disciplines and forming of abilities application of knowledge in physical rehabilitation and sports medicine in further education and in professional activity; teaches effective and timely use of physical rehabilitation in complex restorative dental treatment of patients; providing prevention prepathological or conditions that arise when irrational use of exercise; teaches personal recreational use and recreational modes of physical activity for the prevention of occupational diseases in dentists.

At present discipline "Physical rehabilitation and sports medicine" is becoming increasingly important for quality comprehensive training of future doctors, including dentists. Especially on issues relating to the use of physical training and physical rehabilitation for quick recovery, preserving the quality of life and the prevention or elimination of various complications in patients with dental. WHO experts say that now, more than 500 dental diseases and dental manifestations of systemic diseases clinic are often accompanied by severe physical and psychological suffering. Diseases mechanical damage, defects or anomalies of maxillofacial system often lead to a profound violation of vital functions of man,

such as external breathing, chewing, swallowing, speech and facial expressions, which adversely affects the functioning of the body as a whole, significantly inhibits the psychological state patients distorts the aesthetic appearance of the face. That is why, as soon as possible to prevent or eliminate these functional disorders are very important in the treatment of dental patients use means of physical rehabilitation.

The leading physical rehabilitation is therapeutic physical training (gymnastics). TE - the most active, purposeful and effective part of rehabilitation and preventive measures that has no equal in its unique natural and biological effects and therefore plays a major role among non-drug rehabilitation facilities. Underestimating or untimely and inadequate use of physical rehabilitation in treatment of dental patients often leads to a significant increase in terms of recovery of severe complications and even to permanent disability. Exercise and other physical factors must be additional means, and an integral part of a comprehensive treatment for all periods of rehabilitation. Very important is early, timely purpose of physical rehabilitation, especially in inflammatory processes in maxillofacial area, open and closed kinks jaw, traumatic injuries, including burns, soft tissue in maxillofacial area, contractures temporo-mandibular joints, neuritis or facial trigeminal nerve, the reconstructive operations on cleft lip and palate and other surgical interventions on soft tissues and bone of the facial skeleton, at abnormalities of occlusion, functional disorders and congenital anomalies of the teeth-jaw system in children. Of particular note is the appointment of special exercise during conservative treatment, as well as pre- and post-operative stages of intervention that selectively combined with restorative and breathing exercises, by means of quenching and preformed physical factors considering: clinical course of the disease (phase stage, the degree of functional disorders of the teeth-jaw system), comorbidity, as well as the characteristics of the individual (age, sex, functional abilities of basic life support systems, level of physical fitness and tolerance to physical exercise, state protection systems) at different stages of physical rehabilitation; Equally important is the use of physical training and rehabilitation for prevention or treatment of functional occupational diseases in dentists, especially violations of posture, scoliosis, osteochondrosis, varicose veins of the lower limbs, cardiovascular diseases, respiratory and other diseases. Thus, quality training dentist impossible without perfect mastery of the basics of physical rehabilitation and sports medicine.

The types of studies according to the curriculum are:

a) practical training;

b) independent work of students;

c) lectures.

Practical exercises section of Sports Medicine conducted at the specialized educational rooms and laboratories specialized departments, in the offices of sports medicine universities or medical-sports clinic. Practical lessons in physical rehabilitation appropriate to clinical sites (in the offices of exercise and dental surgery) patients demonstrating relevant to the occupation, clinical analysis of their condition and the appointment of appropriate physical rehabilitation. The number of students in the study group should not exceed 5-10 people. While teaching physical rehabilitation and sports medicine allowed amendments to the curriculum within 15%, depending on the organizational and technical capabilities of specialized departments (courses), but in general should be made of the claims of discipline under the ultimate goals for the EQC and OPP and for specialty training curriculum. The acquisition is controlled themes at workshops. We recommend using these means of determining the level of training of students: tests, situational problems solving, conducting individual and frontal verbal questioning. Also teacher tested and evaluated performance of individual students. To test lecturers drug-control card (form № 061 / o) cards and patient being treated in the office or department of exercise (form number 42-a), which are equal to the verification history, play 0.5 hours for each student.

**Description of the curriculum on discipline "Physical rehabilitation and sports medicine" for students of Faculty of Dentistry"**

| Structure of the discipline | Number of credit hours, including: | | | | Academic year Semester | View control |
|---|---|---|---|---|---|---|
| | Total hours | Auditorium | | ISW | | |
| | | Lectures | Practical lessons | | 3 year study | |
| Module **Physical Rehabilitation and Sports Medicine** | 1 credit ECTS / 30 hours. | 4 | 10 | 16 | Third year of studies (VI semester) | Passed (test) |

**2. Purpose and objectives of the discipline**

The main purpose of the discipline is to develop in students a holistic understanding of the possibilities, forms and methods of medical control during physical rehabilitation, understanding the importance of the timely use of physical rehabilitation in treatment and rehabilitation of dental patients, as well as the prevention of occupational diseases in dentists.

The ultimate goals of the discipline:

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

**2.** Be able to analyze and predict the impact of physical activity on the human body according to medical monitoring and assign movement modes and means of physical rehabilitation according to health, nature of functional disorders of the teeth-jaw system, functional abilities and body tolerance to physical activity.

**3.** Select and apply methods of physical rehabilitation in treatment of dental patients for faster recovery, maintaining quality of life and prevent or eliminate the consequences of the pathological process.

**4.** Be able to evaluate the effectiveness of physical rehabilitation.

**Interdisciplinary connections**: Physical rehabilitation and sports medicine as an educational discipline is based on the study by students of human anatomy and physiology, medical biology, biological chemistry, propaedeutics of internal medicine, therapy, a number of specialized dental disciplines, such as therapeutic, surgical and orthopedic dentistry, physical education and integrates with these disciplines; lays the foundations for normalization of physical activity in the complex treatment of diseases, prevention of their exacerbations and complications, restoration of the proper quality of life of a sick person, improvement of the standard of living and prevention of functional impairment in the process of vital activity; ensures the introduction of modern diagnostic methods into the system of medical monitoring of athletes, the development of modern methods of early diagnosis and treatment of overstrain; control over the functional state of athletes in the conditions of the chosen sports activity, which involves the integration of teaching with these disciplines and the formation of skills to apply knowledge of physical rehabilitation and sports medicine in the process of further education and in professional activities.

**3. The program of the discipline**

Program material in physical rehabilitation and sports medicine consists of theoretical and practical sections. The theoretical section is professionally applied nature and realized in the form of educational material explanations during practical classes (but not more than 15% of the total time occupation), self-study of literature, writing essays, participation in scientific student circle in physical rehabilitation and sports medicine . The practical section involves mastering practical skills and abilities.

**"Sports Medicine"**

Specific objectives:

1. To acquire basic tasks, forms and features medical monitoring during exercise.
2. Master the technique of complex medical examination, including the study and evaluation of physical development, functional abilities of the body and human health.
3. Master degree method of diagnosis of functional disorders of the teeth-jaw system in dental patients.
4. To analyze survey data and generate drug output.
5. Assess tolerance to physical activity and different degrees of fatigue during exercise.
6. To diagnose the early signs of fatigue, prepathological and pathological conditions arising from the inadequate exercise, know the means of prevention and thus provide first aid.
7. Prescribe FR means taking into account the individual characteristics of the organism, the clinical course of the disease and functional disorders of the dental and jaw system in patients with a dental profile.
8. To be able to choose means of PR and apply optimal methods of exercise therapy in purulent-inflammatory processes in the maxillofacial area, open and closed fractures of the jaws taking into account the method of fixation of fragments, in case of traumatic injuries, incl. burns, soft tissues of the maxillofacial region, contractures of temporomandibular joints, neuritis of the facial or trigeminal nerves, during reconstructive and restorative operations for injuries of soft and bony tissues of the facial skeleton, removal of neoplasms, non-union of the upper lip and palate, etc. ., with anomalies of bite development, functional disorders and congenital defects of the dento-maxillary system in children.
9. To master the means of FR taking into account the individual characteristics of the body in order to prevent occupational diseases of dentists.

3.1 **The main tasks of studying the discipline:**

In order to achieve the goal of physical education of students, a complex is envisaged

solving the following problems:

1. Define the key concepts of physical rehabilitation and sports medicine as a clinical discipline.
2. To be able to analyze and predict the impact of physical exertion on the human body based on the data of medical control and to prescribe movement regimes and means of physical rehabilitation in accordance with the state of health, the nature of functional disorders of the dental and jaw system, the functional abilities of the body and tolerance to physical exertion.
3. Choose and apply methods of physical rehabilitation in the complex treatment of patients with a dental profile for faster recovery of health, preservation of quality of life and prevention or elimination of the consequences of the pathological process.
4. Be able to evaluate the effectiveness of physical rehabilitation.

To acquire modern knowledge about:

- the main tasks, forms and features of medical control during physical exercises.

- methods of comprehensive medical examination, including research and assessment of physical development, functional abilities of the body and the state of human health.
- methods of diagnosing the degree of functional disorders of the maxillofacial system in patients with a dental profile.

4. **Competences and learning outcomes**, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the Standard).

In accordance with the requirements of the standard, the discipline provides students with the acquisition of **competencies**:

- *integral*: The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy.

- ***General competences of the specialty (GC):***

GC 1. Ability to abstract thinking, analysis and synthesis.

GC 2. Knowledge and understanding of the subject area and understanding of professional activity.

GC 3. Ability to apply knowledge in practical activities.

GC 4. Ability to communicate in the state language both orally and in writing.

GC 5. Ability to communicate in English.

GC 6. Skills in using information and communication technologies.

GC 9. The ability to identify, pose and solve problems.

GC 11. Ability to work in a team.

GC 12. Efforts to preserve the environment.

GC 13. The ability to act socially responsibly and consciously.

GC 15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, techniques and technologies, use different types and forms motor activity for active recreation and leading a healthy lifestyle.

- ***Professional competences of the specialty (PC):***

PC 1. Ability to collect medical information about the patient and analyze clinical data.

PC 2. Ability to interpret the results of laboratory and instrumental research.

PC 3. Ability to diagnose: determine preliminary, clinical, final, accompanying diagnosis, emergency conditions.

PC 4. Ability to plan and carry out measures for the prevention of diseases of the organs and tissues of the oral cavity and maxillofacial area.

PC 5. Ability to design the process of providing medical care: determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area.

PC 6. The ability to determine a rational regimen of work, rest, and diet for patients in the treatment of diseases of the organs and tissues of the oral cavity and maxillofacial region.

PC 7. The ability to determine the management tactics for patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with concomitant somatic diseases.

PC 8. Ability to perform medical and dental manipulations.

PC 9. The ability to treat the main diseases of the organs and tissues of the oral cavity and maxillofacial area.

PC 10. Ability to organize and carry out medical evacuation measures.

PC 11. Ability to determine tactics, methods and provision of emergency medical aid.

PC 12. Ability to organize and conduct a screening examination in dentistry.

PC 13. The ability to assess the impact of the environment on the state of health of the population (individual, family, population).

PC 15. Processing of state, social and medical information.

PC 16. Ability to organize and carry out rehabilitation measures and care for patients with diseases of the oral cavity and maxillofacial area .

PC 17. The ability to legally support one's own professional activity.

PC 18. The ability to provide pre-medical care according to the protocols of tactical medicine.

Detailing of competencies in accordance with the SRC descriptors in the form of the "Competence Matrix".

Matrix of competences

| № | Competence (Classification of competences according to SRC) | Knowledge | Skills | Comunications | Autonomy and responsibility |
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| **Integral competence** | | | | | |
| The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy. | | | | | |
| **General competences** | | | | | |
| GC1. | Ability to abstract thinking, analysis and synthesis. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | Specialized skills/problem-solving skills required for conducting research and/or implementing innovative activities to develop new knowledge and procedures | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| GC 2. | Knowledge and understanding of the subject area and understanding of professional activity. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility | Use of foreign languages in professional activities | Ability to continue education with a high degree of autonomy |
| GC 3. | Ability to apply knowledge in practical activities. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis | Ability to integrate knowledge and solve complex problems in broad or multidisciplinary contexts | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |

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| | | for original thinking and conducting research | | | |
| GC 4. | Ability to communicate in the national language both orally and in writing. | Critical thinking about problems within and across disciplines | Ability to integrate knowledge and solve complex problems in broad or multidisciplinary contexts | Improving the command of the Ukrainian language. Use of foreign languages in professional activities | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| GC 5. | Ability to communicate in English. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Use of foreign languages in professional activities | Responsibility for contributing to professional knowledge and practice and/or evaluating the results of team and collective activities |
| GC 6. | Skills in using information and communication technologies. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| GC 9. | Ability to identify, pose and solve problems. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| GC | Ability to work in | Specialized | Ability to solve | Clear and | Responsibility for |

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| 11 . | a team. | conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| GC 12 | The desire to preserve the environment. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Ability to continue learning with a high degree of autonomy |
| GC 13 | The ability to act socially responsibly and consciously. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to integrate knowledge and solve complex problems in broad or multidisciplinar y contexts | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| GC 15 | The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous communication of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to persons studying | Ability to continue learning with a high degree of autonomy |

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| | and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle. | | | | |
| **Professional competences of the specialty (PC):** | | | | | |
| PC1. | Ability to collect medical information about the patient and analyze clinical data. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| PC 2. | The ability to interpret the results of laboratory and instrumental research | Critical understanding of problems in the field and on the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 3. | Ability to diagnose: determine preliminary, clinical, final, accompanying diagnosis, emergency conditions. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| PC 4. | The ability to plan and carry out measures for the | Critical understanding of problems in the field and at | Specialized skills/problem-solving skills required for | Clear and unambiguous presentation of one's own | Managing work or learning processes that are complex, unpredictable and |

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| | prevention of diseases of the organs and tissues of the oral cavity and maxillofacial area. | the border of the fields of knowledge | conducting research and/or implementing innovative activities to develop new knowledge and procedures | knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | require new strategic approaches |
| PC 5. | Ability to design the process of providing medical care: to determine the approaches, plan, types and principles of treatment of diseases of the organs and tissues of the oral cavity and maxillofacial area. | Critical thinking of problems in the field and at the boundaries of the fields of knowledge | Specialized skills/problem-solving skills necessary for conducting research and/or carrying out innovative activities to develop new knowledge and procedures | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 6. | The ability to determine a rational regimen of work, rest, and diet for patients in the treatment of diseases of the organs and tissues of the oral cavity and maxillofacial region. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous communication of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to persons studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 7. | The ability to determine the management tactics of patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with concomitant somatic diseases. | Critical thinking of problems in the field and at the boundaries of fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| PC 8. | Ability to perform medical and dental manipulations. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of |

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| | | | information, taking into account aspects of social and ethical responsibilities | specialists and non-specialists, in particular to people who are studying | teams and collectives |
| PC 9. | The ability to treat the main diseases of the organs and tissues of the oral cavity and maxillofacial area. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 10 | Ability to organize and carry out medical evacuation measures. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 11. | Ability to determine tactics, methods and provision of emergency medical assistance. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Responsibility for contributing to professional knowledge and practice and/or evaluating the performance of teams and collectives |
| PC 12. | Ability to organize and conduct a screening examination in | Critical understanding of problems in the field and at the border of | Ability to solve problems in new or unfamiliar environments in the presence of | Clear and unambiguous presentation of one's own knowledge, | Responsibility for contributing to professional knowledge and practice and/or |

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| | dentistry. | the fields of knowledge | incomplete or limited information, taking into account aspects of social and ethical responsibilities | conclusions and arguments to specialists and non-specialists, in particular to people who are studying | evaluating the performance of teams and collectives |
| PC 13. | The ability to assess the impact of the environment on the state of health of the population (individual, family, population). | Critical understanding of problems in the field and at the border of the fields of knowledge | Specialized skills/problem-solving skills necessary for conducting research and/or carrying out innovative activities with the aim of developing new knowledge and procedures | Clear and unambiguous communication of own knowledge, conclusions and arguments to specialists and non-specialists, in particular to learners | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 15. | Processing of state, social and medical information. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to solve problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibilities | Use of foreign languages in professional activities | Responsibility for contributing to professional knowledge and practice and/or evaluating the results of team and collective activities |
| PC 16. | Ability to organize and carry out rehabilitation measures and care for patients with diseases of the oral cavity and maxillofacial area. | Specialized conceptual knowledge that includes current scientific achievements in the field of professional activity or field of knowledge and is the basis for original thinking and conducting research | Ability to integrate knowledge and solve complex problems in broad or multidisciplinar y contexts | Clear and unambiguous presentation of one's own knowledge, conclusions and arguments to specialists and non-specialists, in particular to people who are studying | Managing work or learning processes that are complex, unpredictable and require new strategic approaches |
| PC 17. | The ability to legally secure one's own professional activity. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to integrate knowledge and solve complex problems in broad or multidisciplinary | Use of foreign languages in professional activities | Ability to continue learning with a high degree of autonomy |

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| | | | contexts | | |
| PC 18. | The ability to provide pre-medical care according to the protocols of tactical medicine. | Critical understanding of problems in the field and at the border of the fields of knowledge | Ability to integrate knowledge and solve complex problems in broad or multidisciplinary contexts | Use of foreign languages in professional activities | Ability to continue learning with a high degree of autonomy |

**Learning outcomes:**
**Distribution of learning outcomes by types of learning activities**

| Competencies that the applicant must master | Program learning outcomes | Names of educational disciplines, practices |
|---|---|---|
| **GC 1 – 6, 9, 11-13,15<br>PC 1 –13, 15 – 18** | **PLO 1 –12, 14 -23** | **Physical rehabilitation and sports medicine** |

**Integrative final program learning outcomes, the formation of which is facilitated by the educational discipline:**
PLO 1. Select and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using the previous data of the patient's history, the data of the patient's examination, knowledge about the person, his organs and systems, establish a probable nosological or syndromic preliminary clinical diagnosis of a dental disease (according to list 2).
PLO 2. Collect information about the patient's general condition, evaluate the patient's psychomotor and physical development, the condition of the maxillofacial organs, based on the results of laboratory and instrumental studies, evaluate information about the diagnosis (according to list 5).
PLO 3. Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, X-ray, functional and/or instrumental) according to list 5, of patients with diseases of organs and tissues of the oral cavity and maxillofacial area for differential diagnosis of diseases (according to list 2).
PLO 4. Determine the final clinical diagnosis in compliance with the relevant ethical and legal norms, by making a reasoned decision and logical analysis of the received subjective and objective data of clinical, additional examination, carrying out differential diagnosis under the control of the head physician in the conditions of a medical institution (according to the list 2.1).
PLO 5. Establish a diagnosis of emergency conditions under any circumstances (at home, on the street, in a medical institution), in conditions of emergency, martial law, lack of information and limited time (according to list 4).
PLO 6. Plan and implement dental disease prevention measures among the population to prevent the spread of dental diseases.
PLO 7. Analyze the epidemiological situation and carry out mass and individual, general and local drug and non-drug prevention measures for dental diseases.
PLO 8. Determine the approach, plan, type and principle of treatment of dental disease (according to list 2) by making a reasoned decision according to existing algorithms and standard schemes.
PLO 9. To determine the nature of the regime of work, rest and the necessary diet in the treatment of dental diseases (according to list 2) on the basis of a preliminary or final clinical diagnosis by making a reasoned decision according to existing algorithms and standard schemes.
PLO 10. Determine the tactics of managing a dental patient with somatic pathology (according to list 3) by making a reasoned decision according to existing algorithms and standard schemes.
PLO 11. To carry out treatment of basic dental diseases according to existing algorithms and standard schemes under the control of the head physician in the conditions of a medical institution (according to list 2.1).
PLO 12. To organize medical evacuation measures among the population, military personnel, in emergency

situations, including martial law, during the expanded stages of medical evacuation, taking into account the existing system of medical evacuation support.
PLO 14. Analyze and evaluate government, social and medical information using standard approaches and computer information technologies.
PLO 15. Assess the impact of the environment on the state of health of the population in the conditions of a medical institution according to standard methods.
PLO 16. To form goals and determine the structure of personal activity based on the result of the analysis of certain social and personal needs.
PLO 17. Follow a healthy lifestyle, use self-regulation and self-control techniques.
PLO 18. To be aware of and be guided in one's activities by civil rights, freedoms and duties, to raise the general educational cultural level.
PLO 19. To comply with the requirements of ethics, bioethics and deontology in their professional activity.
PLO 20. To organize the required level of individual safety (own and the persons they care about) in case of typical dangerous situations in the individual field of activity.
PLO 21. Perform medical manipulations on the basis of a preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 6).
PLO 22. To perform medical dental manipulations on the basis of preliminary and/or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 7).
PLO 23. Perform emergency medical care manipulations using standard schemes, under any circumstances based on the diagnosis of an emergency (according to list 4) in limited time (according to lists 6, 7).

**5. Information volume of the discipline**

The study of the discipline takes 30 hours (10 hours of practical classes, 4 hours of lectures, 16 hours of independent work of students) 1 ECTS credit.

## The structure of the discipline "Physical Rehabilitation and Sports Medicine"

| № | Topic | Lection | Practice | SWS | Individual work |
|---|---|---|---|---|---|
| 1. | Complex medical examination during exercise. Research and assessment of physical development. Research and assessment of functional capacity of the organism. Medical conclusion. | 2 | 2 | 4 | - |
| 2. | General bases of application of means of physical rehabilitation at patients of a dental profile. The use of means of physical rehabilitation for the prevention and correction of occupational diseases in dentists. | 2 | 2 | 4 | - |
| 3. | Physical rehabilitation for purulent-inflammatory processes in the maxillofacial area. Physical rehabilitation for fractures of the jaws and bones of the facial skeleton. | 2 | 2 | - | |
| 4. | Physical rehabilitation in diseases and contractures temporo-mandibular joints. Physical rehabilitation in neuritis of the facial and trigeminal nerve. | 0 | 2 | 2 | - |
| 5. | Physical rehabilitation during reconstructive and plastic operations in the maxillofacial area. | 0 | 2 | 4 | - |

| | | | | | |
|---|---|---|---|---|---|
| | Physical rehabilitation for congenital anomalies of jaw development and occlusion disorders in children. | | | | |
| | **TOTAL HOURS – 30 / 1 credits ECTS** | **4** | **10** | **16** | |
| **Final control module "Physical rehabilitation, sports medicine»** | | | | | **Passed** |

**Thematic plan of practical classes**

| № | Topic | Hours |
|---|---|---|
| | | |
| 1. | Complex medical examination during exercise. Research and assessment of physical development. Research and assessment of functional capacity of the organism. Medical conclusion. | 2 |
| 2. | General bases of application of means of physical rehabilitation at patients of a dental profile. The use of means of physical rehabilitation for the prevention and correction of occupational diseases in dentists. | 2 |
| 3. | Physical rehabilitation for purulent-inflammatory processes in the maxillofacial area. Physical rehabilitation for fractures of the jaws and bones of the facial skeleton. | 2 |
| 4. | Physical rehabilitation for diseases and contractures of the temporomandibular joints. Physical rehabilitation for neuritis of the facial and trigeminal nerves. | 2 |
| 5. | Physical rehabilitation during reconstructive and plastic operations in the maxillofacial area. Physical rehabilitation for congenital anomalies of jaw development and occlusion disorders in children. | 2 |
| **TOTAL HOURS:** | | **10** |

## Thematic plan of self work of student (SWS) III year students of Faculty of Dentistry "Physical rehabilitation and sports medicine"

| № | Topic of SWS | Hours |
|---|---|---|
| 1. | Making appointments with exercise therapy in medical records. Writing a medical control card (form № 061 / o) and a card of a patient being treated in the surgical dentistry department, in the exercise therapy office or rehabilitation center (form №42 / o). Formation of practical skills. | 4 |
| 2. | Research and assessment of the dental and maxillofacial system. Features of the use of therapeutic massage in dentistry. | 4 |
| 3. | Features of physical rehabilitation for burns and injuries of soft tissues of the maxillofacial area. | 2 |
| 4. | Tasks of therapeutic exercise in facial nerve disorders caused by surgical treatment in the maxillofacial area. | 2 |
| 5. | Sound gymnastics and special exercises that have a targeted effect on functionally impaired systems in children with congenital malformations of the upper lip and hard and soft palate. | 4 |

| TOTAL HOURS: | 16 |
|---|---|

## Thematic plan of lections

| № | Topic | Hours |
|---|---|---|
| 1. | Complex medical examination during exercise. Research and assessment of physical development. Research and assessment of functional capacity of the organism. Medical conclusion. | 2 |
| 2. | General principles of the use of physical rehabilitation in patients with dental profile. Specifics the applications of the therapeutic massage in dentistry. | 2 |
| | **TOTAL HOURS:** | 4 |

**Individual tasks - no**

**6. Teaching methods**

**Methods of using the word.** The main types of verbal transmission of knowledge in the process of physical education are: explanation, narration and conversation (introductory conversations; conversations aimed at communicating new knowledge, and conversations to check the acquired knowledge and the degree of awareness of students' actions).

**Methods of providing visibility.** This group of teaching methods includes the demonstration of movements in nature or in the form of images perceived through direct observation. The study of functional samples is always accompanied by their visual demonstration by the teacher or students under the direct supervision of the teacher. Practically, a live demonstration is always accompanied by a verbal explanation. Moreover, the word in this case plays an auxiliary role. Mainly in the educational work, a demonstration of physical therapy in the form of a physical exercise by the teacher or one of the students is used. The demonstration may precede the explanation, be accompanied by the explanation, or be carried out after the explanation. The demonstration achieves its goal if the movement being demonstrated is clearly visible to all students, if it is performed technically correctly, if it is pre-organized and the students' attention is properly directed.

**Methods of practical exercises.** In the theory and practice of physical rehabilitation and sports medicine, the term "exercise" includes two different concepts: a) a means of physical rehabilitation, that is, a specially organized motor action; b) the method of using the means, the essence of which consists in the deliberate, often multiple repetition of specified motor actions with the aim of normalizing physical activity in the complex treatment of diseases, prevention of their exacerbations and complications, restoration of the proper quality of life of a sick person.

**7.Distribution points that get students**

Current control is performed during the training sessions and aims at checking mastering educational material. The form of the current control during the classes defined working curriculum subjects. The self work of students, which is provided for by the work curriculum along with practical classes, is monitored during the current monitoring. The form of final control is credit.

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

8. **Current control** is carried out during training sessions and is aimed at checking students' assimilation of educational material.

8.1 Assessment of current educational activities. During the assessment of mastery of each topic for the current educational activity, the student is assigned a 4-point (national) grade, while taking into account

all types of work provided by the discipline program. The student must receive a grade on each topic for further conversion of grades into points on a multi-point (200-point) scale.

9. **The form of the final control** of study success is a credit. Semester assessment of subjects is carried out after the end of its study, before the beginning of the examination session.

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

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

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

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

For convenience, a table conversion 200 - point scale:

*Table 1*

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

| **4-point scale** | **200-point scale** | **4-point scale** | **200-point scale** | **4-point scale** | **200-point scale** | **4-point scale** | **200-point scale** |
|---|---|---|---|---|---|---|---|
| 5 | 200 | 4.45 | 178 | 3.92 | 157 | 3.37 | 135 |
| 4.97 | 199 | 4.42 | 177 | 3.89 | 156 | 3.35 | 134 |
| 4.95 | 198 | 4.4 | 176 | 3.87 | 155 | 3.32 | 133 |
| 4.92 | 197 | 4.37 | 175 | 3.84 | 154 | 3.3 | 132 |
| 4.9 | 196 | 4.35 | 174 | 3.82 | 153 | 3.27 | 131 |
| 4.87 | 195 | 4.32 | 173 | 3.79 | 152 | 3.25 | 130 |
| 4.85 | 194 | 4.3 | 172 | 3.77 | 151 | 3.22 | 129 |
| 4.82 | 193 | 4.27 | 171 | 3.74 | 150 | 3.2 | 128 |
| 4.8 | 192 | 4.24 | 170 | 3.72 | 149 | 3.17 | 127 |
| 4.77 | 191 | 4.22 | 169 | 3.7 | 148 | 3.15 | 126 |
| 4.75 | 190 | 4.19 | 168 | 3.67 | 147 | 3.12 | 125 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.72 | 189 | 4.17 | 167 | 3.65 | 146 | 3.1 | 124 |
| 4.7 | 188 | 4.14 | 166 | 3.62 | 145 | 3.07 | 123 |
| 4.67 | 187 | 4.12 | 165 | 3.57 | 143 | 3.02 | 121 |
| 4.65 | 186 | 4.09 | 164 | 3.55 | 142 | 3 | 120 |
| 4.62 | 185 | 4.07 | 163 | 3.52 | 141 | less 3 | not enough |
| 4.6 | 184 | 4.04 | 162 | 3.5 | 140 | | |
| 4.57 | 183 | 4.02 | 161 | 3.47 | 139 | | |
| 4.52 | 181 | 3.99 | 160 | 3.45 | 138 | | |
| 4.5 | 180 | 3.97 | 159 | 3.42 | 137 | | |
| 4.47 | 179 | 3.94 | 158 | 3.4 | 136 | | |

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

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

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

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

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

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

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

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

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

*Table 2*

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

Scores of discipline for students who successfully completed the program, converted into traditional 4-point scale by absolute criteria, which are listed in the table below:

*Table 3*

| Points of discipline | Estimate a 4-point scale |
|---|---|
| From 170 to 200 points | 5 |
| From 140 to 169 points | 4 |
| From 139 points to the minimum number of points that a student must score | 3 |
| Below the minimum number of points that a student must score | 2 |

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