STATE UNIVERSITY
"UZHHOROD NATIONAL UNIVERSITY"
MEDICAL FACULTY 2
Department of Internal Medicine

"APPROVED"
Dean of the Medical Faculty 2
Vasyl KALIY
"28" 05 2025

SYLLABUS

CC 39. PHYSICAL REHABILITATION, SPORTS MEDICINE

Educational level	**Second (Master)**
Subject area	**22 "Health" / I "Health and Social Welfare"**
Specialty	**222 "Medicine" / I2 "Medicine"**
Educational program	**"General Medicine"**
Discipline status	**Compulsory**
Educational level	**Second (Master)**

Uzhhorod 2025

"**Physical Rehabilitation, Sport Medicine** " syllabus for higher education seekers of the subject area 22 "Health" / I "Health and Social Welfare", specialty 222 "Medicine"/ I2 "Medicine", educational program "General medicine".

Authors: Tovt-Korshynska M.I., MD, Professor, Ph.D., Head of the Department of Internal Medicine (Medical Faculty №2); Svistak V.V., MD, Ph.D., Associate Professor of Faculty Therapy Department (Faculty of Medicine), Mashura H.Y., MD, Ph.D., Associate Professor of Faculty Therapy Department (Faculty of Medicine)

The syllabus was discussed and approved at the meeting of the Department ***of Internal Medicine***

Minutes № _11_ of "_28_" __May_ 2025

Head of the Department _____ /Marianna TOVT-KORSHYNSKA/

Approved by the Scientific-Methodical Commission of the Medical Faculty 2

Minutes № _9_ of "*28*" May 2025

Head of the Scientific-Methodical Commission _____ /Nataliia MALETS/

1. DESCRIPTION OF THE EDUCATIONAL SUBJECT

<table>
<tr><td rowspan="2">Name of indicators</td><td colspan="2">Distribution of academic hours according to the curriculum</td></tr>
<tr><td>Full-time study</td><td>Extramural form of study</td></tr>
<tr><td>ECTS credits – 3</td><td colspan="2">Year of training:</td></tr>
<tr><td>Total number of hours – 90</td><td>4</td><td>-</td></tr>
<tr><td>Number of modules – 1(content modules-2)</td><td colspan="2">Semester:</td></tr>
<tr><td rowspan="6">Weekly academic hours for full-time study:

class-room academic hours - 2

student's self-study hours - 3</td><td>7 (8)</td><td>-</td></tr>
<tr><td colspan="2">Lectures:</td></tr>
<tr><td>10</td><td>-</td></tr>
<tr><td colspan="2">Practical classes (seminars):</td></tr>
<tr><td>30</td><td>-</td></tr>
<tr><td colspan="2">Laboratory classes:</td></tr>
<tr><td rowspan="2">Type of final control: credit</td><td></td><td>-</td></tr>
<tr><td colspan="2">Self-study:</td></tr>
<tr><td>Form of final control: complex</td><td>50</td><td>-</td></tr>
</table>

2. PURPOSE OF THE EDUCATIONAL SUBJECT

The purpose of studying the discipline OK 39. **"Physical Rehabilitation, Sport Medicine"** is the clinical and physiological substantiation of the use of forms and modalities of physical rehabilitation at different nosology at inpatient, polyclinic and sanatorium stages of treatment. The purpose of the sports medicine study is to analyze and predict the impact of physical activity on the body of athletes and athletes and the appointment of necessary rehabilitation measures.

According to the educational program, the study of the discipline contributes to the formation of the following competencies in higher education seekers:

GC 1. Ability to abstract thinking, analyzing and synthesizing information.
GC 2. Ability to learn and master modern fields of knowledge.
GC 3. Ability to apply knowledge in practical situations.
GC 4. Knowledge and understanding of the subject area and understanding of professional activity.
GC 5. The ability to adapt and act in a new situation.
GC 6. Ability to make informed decisions.
GC 7. The ability to work in a team.

GC 8. - Ability to interpersonal interaction.

GC 11. - Ability to search, process and analyze information from various sources.

GC 15 - Ability to preserve and multiply moral, cultural, scientific values and achievements of society on the basis of understanding the history and patterns of development of the subject area, its place in the general the system of knowledge about nature and society and in the development of society, technology and technology, use different types physical activity for active recreation healthy lifestyle.

Professional competences (PC)

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

PC 2. The ability to determine the necessary list of laboratory and instrumental studies and evaluation of their results.

PC 4. Ability to determine the principles of treatment of diseases.

PC 6. Ability to conduct medical evacuation activities.

PC 10. Ability to perform medical manipulations.

PC 11. Ability to determine therapeutic nutrition in the treatment of diseases.

PC 21. To convey knowledge, conclusions and arguments about health care problems and related issues to specialists and non-specialists, in particular to students understandable.

PC 22. Ability to manage healthcare work processes that are complex, unpredictable and require new strategic approaches.

PC 23. Ability to develop and implement scientific and applied projects in the field of health care.

PC 24. Abidance with ethical in working with patients.

PC 25. Maintaining professional and academic integrity, being responsible for the reliability of the obtained scientific results.

3. PREREQUISITES FOR STUDYING THE EDUCATIONAL SUBJECT

The prerequisites for studying the educational subject "**Physical Rehabilitation, Sport Medicine**" are mastering the following educational subjects (ES) of the educational program (EP):

ES 12. Anatomy

ES 14. Physiology

ES 23 Propaedeutics of Internal Medicine

ES 25 General Surgery (with clinical anatomy and operative surgery)

4. EXPECTED LEARNING OUTCOMES

According to the educational program "General Medicine", the study of the educational subjects "Physical Rehabilitation, Sport Medicine" should ensure the achievement of the following program learning outcomes (PLO) by higher education seekers**:**

Program learning outcomes	**PLO code**

Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.	PLO 1
Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.	PLO 2
Specialized conceptual knowledge that includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related to interdisciplinary problems.	PLO 3
Determine the nature and principles of treatment (conservative, operative) in patients with diseases (from list 2), taking into account the age of the patient, in the conditions of a health care facility, outside its boundaries and at the stages of medical evacuation, including in field conditions, based on a previous clinical diagnosis, adhering to relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, if it is necessary to expand the standard scheme, to be able to substantiate personalized recommendations under the control of the head physician in the conditions of a medical institution.	PLO 9
Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.	PLO 10

List 2 (diseases)

17. intracranial injury
22. impaired cerebral circulation
47. essential and secondary arterial hypertension
48. ischemic heart disease
61. bronchial asthma
62. bronchitis
73. pleuritis
75. pneumonia
76. pneumothoraxes
80. chronic obstructive pulmonary disease
82. ulcer disease
85. gastritis, duodenitis
91. enteritis, colitis
95. peptic ulcer
104. cholecystitis, cholangitis, gallstone disease
138. gout
147. spinal cord injury
159. obesity
166. diabetes mellites
234. incorrect positions and presentation of the fetus
244. inflammatory diseases of the female genital organs

Expected learning outcomes (ELO) that should be achieved by students after mastering the discipline "Physical Rehabilitation, Sport Medicine":

ELO code	Expected learning outcomes of the discipline	PLO code
ELO 1	The ability to carry out professional activities that require updating and integration of knowledge. Carry out professional development and further professional training with a high level of autonomy	PLO 1
ELO 2	The ability to apply knowledge of basic and clinical biomedical sciences to solve professional problems in the field of health care.	PLO 2
ELO 3	Ability to critically analyze problems in the field of medicine and interdisciplinary problems related to it.	PLO 3
ELO 4	Determine the nature and principles of treatment (conservative, operative) in patients with diseases (from list 2), taking into account the age of the patient, in the conditions of a health care facility, outside its boundaries and at the stages of medical evacuation, including in field conditions, based on a previous clinical diagnosis, adhering to relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, if it is necessary to expand the standard scheme, to be able to substantiate personalized recommendations under the control of the head physician in the conditions of a medical institution.	PLO 9
ELO 5	Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.	PLO 10

5. DIAGNOSTIC TOOLS AND EVALUATION CRITERIA OF LEARNING OUTCOMES

Means of assessment and methods of demonstrating learning outcomes

Means of assessment and methods of demonstrating learning outcomes in the discipline are:
ELO 1. – mastering the theoretical knowledge of the organization of the sports medicine and physical rehabilitation service - oral answer, multiple choice questions.
ELO 2, ELO 3 – based on knowledge of fundamental disciplines, mastering methods of somatoscopy and anthropometry, calculations of relevant indices, the ability to assess the state of health and physical development of athletes, simulation scenario performance and fill appropriate medical documentation (report of physical development assessment, medical control card) - writing.
On the basis of the given diagnoses and period of treatment, formulate a clinical diagnosis, choose a movement mode, give recommendation and write exercise prescribtion – writing, simulation scenario performance.
ELO 4. – mastering the methodology of conducting functional tests - performing practical skills; the ability to determine the indicators of a person's physical ability and give an interpretation of the obtained results (testing), simulation scenario performance; prescribing means, forms and methods of physical rehabilitation for patients with different diseases at different periods of treatment – oral answer, simulation patients clinical examination.
ELO 5. – write an exercise prescription based on functional capabilities of the body and domestic and foreign recommendations - multiple choice questions, oral answer.

Forms of control and criteria for learning outcomes evaluation

Forms of current control: (oral, written, demonstration of skills, etc.)
Form of module control: (oral or written)
Form of final semester control: (credit, exam)

Methods of control. Control of the level of knowledge is carried out by performing practical work and tasks of independent work (multiple choice questions, activity in classes, attending lectures). The quality control of the performance of independent tasks is carried out by the teacher in class (auditory or in Google Meet) and the contact of the teacher-student through the university e-mail.

Distribution of points received by higher education seekers (Content module 1)

Current assessment					**PT1**	**Self-study**	**MCW1**	**Sum**
T1	T2	T3	T4	T5	15	5	40	**80**
5	5	5	5	-				

T1, T2, T3, T4 – topics, the maximum score for each topic is 5 points;
PT1-Practical task1 – complete Form1 and Form2
Self-study of topic 5(T5) – 5 points;
MCW1-Module control work1

Distribution of points received by higher education seekers (Content module 2)

Current assessment									**PT2**	PT3	**IW**	**MCW2**	**Sum**
T6	T7	T8	T9	T10	T11	T12	T13	T14	10	10	5	40	**120**
5	10	5	10	5	5	5	5	5					

T6, T8, T10-14 – topics, the maximum score for each topic is 5 points;
T7, T9 - topics, the maximum score for each topic is 10 points;

PT2-Practical task 2 (speech with a presentation from the provided list of topics - 10 points, if the student fully explains the chosen topic and is able to clearly answer the questions);
PT3-Practical task 3 (a medical history - 10 points);
IW 2 – individual work (student scientific work, report at a student scientific conference) – 5 points.

Evaluation of certain types of educational work in the discipline

Type of activity of the higher education seeker	**Content module 1**		**Content module 2**	
	Number	Maximum number of points (total)	Number	Maximum number of points (total)
Laboratory classes	4	20	9	55
Practical task 1	1	15		
Practical task 2 (presentation)			1	10
Practical task 3 (case history)			1	10
Individual work			1	5
Self-study	1	5		
Module control work		40		40
Total		**80**		**120**

Criteria of current educational activity evaluation

The grade "*excellent*" (180-200 points) is awarded to students who actively participated in the discussion of the most complicated issues on the studied topic, gave at least 90% correct answers to standardized test tasks, completed written tasks without errors, completed practical tasks and properly presented their results.

The grade *"good"* (148-179 points) is awarded to students who participated in the discussion of the most complicated issues on the studied topic, gave at least 74% correct answers to standardized test tasks, made some minor mistakes in answers to written tasks, completed practical tasks and properly presented their results.
The grade "*satisfactory*" (120-147 points) is awarded to students who participated in the discussion of the most complicated issues on the studied topic, gave at least 60% correct answers to standardized test tasks, made significant mistakes in answers to written tasks, completed practical tasks and properly presented their results.
The grade *"unsatisfactory"* (0-119 points) is awarded to students who did not participate in the discussion of the most complicated issues on the studied topic, gave less than 60% correct answers to standardized test tasks, made gross mistakes in answers to written tasks or did not answer them at all, did not complete practical tasks and did not properly present their results.

Criteria for module test evaluation

A module test is done by completing prepared tasks (test cards) with different cards having the same difficulty level. All students are allowed to complete the module test, regardless of the current assessment's results and the presence of unfulfilled missed practical classes. The period of 1.5 hours is given to complete the entire module test. It is forbidden to use any information sources while completing the module test.
The grade "*excellent"* (180-200 points) is awarded to students who gave at least 90% correct answers to standardized test tasks and completed written tasks without errors.
The grade "*good*" (148-179 points) is awarded to students who gave at least 74% of the correct answers to standardized test tasks and made some minor mistakes in the answers to written tasks.
A student who gave at least 60% of the correct answers to standardized test tasks and made significant mistakes in the answers to written tasks receives the grade "satisfactory" (*120-147* points).
The grade "*unsatisfactory*" (0-119 points) is awarded to students who gave less than 60% correct answers to standardized test tasks, made gross errors in answers to written tasks, or did not provide answers to the designed written tasks.

Criteria for the final semester control evaluation

The final semester rating is calculated as the sum of two modules. According to the Regulation on the assessment of students' educational achievements according to the credit-module system, if the final module grade is at least 120 points, then with the consent of the student, it can be counted as the final (semester) grade for the academic discipline. Students who are not satisfied with the final positive grades given by the teacher based on the results of module tests, as well as those who received "unsatisfactory" grades and at the same time have no unfulfilled practical (laboratory) classes, have the right to take a credit (exam) in the discipline. Full-time students are admitted to the final (semester) control of a specific discipline in the form of a credit or exam if, based on the results of the module tests, they scored at least 35 per cent of the possible points. Based on the results of the answers given during the exam/credit, a grade is awarded according to a 200-point scale. Regardless of whether the student takes the exam (credit) because their final module grade is unsatisfactory (70-119 points) or to increase the positive grade, the teacher gives the student a grade based solely on the level of their knowledge, demonstrated during the exam (credit), that is, based on 200 points, but the final (semester) grade cannot be lower than the final module grade.

Criteria for the module final semester control evaluation

· the grade "*excellent*" (180-200 points, A) is awarded to students who: have comprehensive, systematic, and deep knowledge of educational and syllabus material; are able to independently perform the tasks prescribed by the syllabus, apply the acquired knowledge and skills in non-standard situations; learned the basic and familiarized themselves with the additional literature

recommended by the program; mastered the interrelationship of the main concepts of the discipline and are aware of their importance for the profession they acquire; freely express their own opinions, independently evaluate various life phenomena and facts, revealing their personal position; independently determine the individual goals of their own educational activity, revealed creative abilities and used them when studying the syllabus material, as well as demonstrated interest to scientific work.

· grade "*good*" (164-179 points, B) is awarded to students who: have comprehensive, systematic, and deep knowledge of educational and syllabus material, including applying it in practice, have sufficient systematic knowledge in accordance with the syllabus material, apply it reasonably in different situations; have the ability to independently search for information, as well as to analyze, set and solve professionally oriented problems; while answering the exam/credit questions they might have some inaccuracies, with correcting those themselves. The student should also be able to choose convincing arguments to confirm the studied material;

· the grade "*good*" (148-163 points, C) is awarded to students who: completed the work in general, but during the final control make a certain number of mistakes; are able to compare, generalize, systematize information under the guidance of a teacher, in general independently apply it in practice, control their own activities; learned the curriculum material, successfully completed the tasks prescribed by the program, familiarized themselves with the basic literature recommended by the program;

· the grade "*satisfactory*" (128-147 points, D) is awarded to students who: know the basic syllabus material to the extent necessary for further study and its use in the future profession; perform tasks well, but with a significant number of errors; familiarized themselves with the basic literature recommended by the syllabus; make mistakes when completing tasks during classes or exams but find ways to correct them under the guidance of the teacher.

· the grade "*satisfactory*" (120-127 points, E) to students who: have basic knowledge of educational and syllabus material in the amount necessary for further study and its application in the future profession, and the performance of tasks meets the minimal criteria. Knowledge is reproductive in nature.

· grade "*unsatisfactory*" (70-119 points, FX) is awarded to students who: revealed significant gaps in the knowledge of the main syllabus material and made fundamental mistakes during the completion of tasks provided by the syllabus.

· grade "*unsatisfactory*" (0-69 points, F) is awarded to students who learned the educational material only at the level of elementary recognition and reproduction of individual facts or did not learn it at all; made gross errors when completing the tasks provided by the syllabus; cannot continue their studies and are not ready for professional activity after graduating from the university without re-studying this discipline.

Rating scale: national and ECTS

Total points for all kinds of educational activity	**ECTS**	**National scale**	
		For differentiated credit	**For credit**
180 – 200	**A**	**Excellent**	**Credit**
164 – 179	**B**	**Good**	
148 – 163	**C**		
128 – 147	**D**	**Satisfactory**	
120 – 127	**E**		
70 – 119	**FX**	**Unsatisfactory**	**Re-taking the exam**
0 – 69	**F**	**Unsatisfactory with re-studying the course**	**Mandatory re-studying the course**

6. SYLLABUS

6.1. The content of the discipline

Content Module 1

Topic 1. The basics of sport medicine. Introduction to sport medicine. Sports medicine (SM): definition, the goal of a sports medicine, sports medicine physician. The organization service of sports medicine in Ukraine. The basics principles in SM: Individuality Principle. The basics principles in SM: Specificity Principle, Overload Principle. The basics principles in SM: Progression Principle, Variation.

The basics principles in SM: Principle of Diminishing Returns, Reversibility/Regression. Muscle physiology. Classification of muscle fiber. Cardiorespiratory physiology. Pulmonary ventilation. Blood Pressure and Blood volume changes. Blood lipids and Body composition. Benefits of Regular Physical Activity and/or Exercise: Improvement in Cardiovascular and Respiratory Function. Benefits of Regular Physical Activity and/or Exercise: Reduction in Cardiovascular Disease Risk Factors. Benefits of Regular Physical Activity and/or Exercise: Decreased Morbidity and Mortality. Benefits of Regular Physical Activity and/or Exercise: Other Benefits**.**

Topic 2. Physical examination of athletes. The preparticipation physical examination. Medical history

Cardiovascular assessment. Musculoskeletal assessment. Visual examination of the chest. Visual examination of the spine and legs. Other areas for assessment: Height/Weight (eating disorders, ideal body weight). Lab tests used in physical examination of athletes. Cardiac testing in athletes. Clearance

Absolute contraindications to exercise. Relative contraindications to exercise. Medical records

Topic 3. The exercise prescription. Electrocardiographic responses to exercise testing. Physical activity and exercise. The exercise prescription. General components of an exercise program. FITT principles chart. Stages of an exercise program. Sign of overtraining. WHO Global recommendations on physical activity for health (Children and youth aged 5–17). WHO Global recommendations on physical activity for health (In adults aged 18–64). WHO Global recommendations on physical activity for health (In adults aged 65 years and above). Types of sports. Expected ECG changes in the normal heart. Abnormal responses with exercises. Final determination for myocardial ischemia. Dangerous rhythms.

Athletic Heart Syndrome. Electrocardiogram of Athletic Heart Syndrome.

Topic 4. Assessment of physical performance. Physical performance. Components of physical performance (fitness). Treadmill exercise test. Test Navakki (bicycle ergometric test). The Cooper 12-minute run test. The Harvard Step Test. Martine-Kushelevsky (20 squats for 30 s) test. The type of reaction (Martine-Kushelevsky). Breath-holding tests. Submaximal test PWC170. Orthostatic test. The Ruffier index.

Topic 5. Optimization of the athlete's training process. Nutrition of active individuals.

Therapeutic drugs. Immediate life-threatening injuries. Potentional life life-threatening injuries. Environmental injury.

Content Module 2

Topic 6. General basics of physical rehabilitation: physical modalities, therapeutic exercise. Physical medicine and rehabilitation. Indications and Contraindications. Physical modalities. Thermotherapy: Therapeutic uses for heat, Indications for heat therapy, contraindications for heat therapy. Mechanisms of heat transfer. Therapeutic effects of cold. Indications for cold therapy. Contraindications for cold therapy. Ultraviolet Radiation. Electrotherapy. Massage. Types, effects, Contraindications. Common techniques of therapeutic massage. Therapeutic exercise: Types of Exercises.

Topic 7. Cardiac Rehabilitation. Cardiac rehabilitation. Definition, goals. Outcomes of cardiac rehabilitation. Primary and secondary prevention. Phases of cardiac rehabilitation. Indications for inpatient Cardiac Rehabilitation. Absolute Contraindications for Entry into Inpatient and Outpatient Exercise Training. NYHA cardiac functional classification. Cardiac rehabilitation of the post-MI patient.

Patients at High Risk During Cardiac Rehabilitation. Absolute contraindications to exercise testing and training for patients with MI. Cardiac rehabilitation for patients with Angina Pectoris. Cardiac Rehabilitation After Revascularization Procedures Post–Coronary Artery Bypass Grafting. Cardiac rehabilitation for patients with Cardiomyopathy.

Topic 8. Pulmonary Rehabilitation. Pulmonary rehabilitation. Indications, Contraindications, Goals. Benefits of pulmonary rehabilitation. Pulmonary rehabilitation for patients with COPD. Components of a rehabilitation program for patients with COPD. Exercise training as a component of pulmonary rehabilitation. General exercise guidelines for pulmonary rehabilitation. Breathing control techniques. Airway clearance techniques. Secretion mobilization techniques. Preoperative and Postoperative Chest Therapy Program. Physical rehabilitation of patients with restrictive lung disease. Post-COVID-19 rehabilitation.

Topic 9. Digestive and Metabolic Diseases Rehabilitation. Physical rehabilitation of digestive diseases: Goals of digestive rehabilitation, Indications, Contraindication. Types of physical Exercises and massage used in rehabilitation program. Goals of massage**.** Physical rehabilitation in patients with GERD, gastritis, peptic ulcers. Physical rehabilitation in patients with IBS, diseases of the intestines. Physical rehabilitation in patients with cholecystitis, cholelithiasis, gallbladder disease. Physical rehabilitation in patients with metabolic syndrome and obesity, diabetes mellitus.

Topic 10. Rehabilitation for the neurologic patient. Physical rehabilitation in patients with traumatic brain injury. Physical rehabilitation in patients with intracranial injury and impaired cerebral circulation. Physical rehabilitation in patients with spinal cord injury, chronic low back pain. Physical rehabilitation in patients with facial nerve palsy.

Topic 11. Physical therapy in obstetrics and gynecology. Physical therapy in obstetrics and gynecology: goals, benefits, indications, contraindications. Recommendation and prescribing an individualized exercise program during pregnancy. Physical rehabilitation during labour. Physical rehabilitation in the postpartum period.

Topic 12. Physical therapy in surgery. Physical rehabilitation in the preoperative period (for planned operations), early postoperative period, late postoperative period, remote postoperative period. Peculiarities of the use of exercises during preparation for surgery: on the organs of the chest cavity (heart, lungs); on the organs of the abdominal cavity. Peculiarities of the use of physical rehabilitation in the early postoperative period: on the organs of the chest cavity (heart, lungs); on the organs of the abdominal cavity. Late postoperative period. Peculiarities of physical rehabilitation of servicemen with gunshot defects of soft tissues at different levels of medical care.

Topic 13. Physical therapy in traumatology and orthopedics. Means, forms, methods of physical rehabilitation. Peculiarities of using physical exercises during the immobilization period: for affected limbs; active physical exercises; massage; for healthy limbs; learning to walk on crutches. Peculiarities of using physical exercises for affected limbs in the early post-immobilization period: massage; passive exercises; active exercises from easy starting positions. Peculiarities of using physical exercises in the late post-immobilization period. Physical rehabilitation in patients with amputation of the lower and upper limbs.

Topic 14. Pediatric Physical Therapy. Pediatric rehabilitation, goals, indications, contraindications.

Physical rehabilitation in children with cerebral palsy. Physical rehabilitation in children with spina bifida. Physical rehabilitation in children with general disabilities. Physical rehabilitation in children with prematurity. Physical rehabilitation in children with spasticity.

6.2. The structure of the discipline

Titles of content modules and topics	Number of hours					
	Form of study:					
	Total	including				
		lectures	practical classes (seminars)	laboratory classes	individual work	self-Study
7 (8) semester						
Content Module 1						
Topic 1. The basics of sport medicine. Introduction to sport medicine.	6	2	2			2
Topic 2. Physical examination of athletes...	4		2			2
Topic 3. The exercise prescription. Electrocardiographic responses to exercise testing.	10		2			8
Topic 4. Assessment of physical performance.	6	2	2			2
Topic 5. Optimization of the athlete's training process.	5					5
Control Work 1	4		2			2
Total for the module 1	35	4	10			21
Content Module 2						
Topic 6. General basics of physical rehabilitation: physical modalities, therapeutic exercise	6	2	2			2
Topic 7. Cardiac Rehabilitation	6	2	2			2
Topic 8. Pulmonary Rehabilitation.	7		2			5
Topic 9. Digestive and Metabolic Diseases Rehabilitation.	7	2	2			3

Topic 10. Rehabilitation for the neurologic patient.	4		2			2
Topic 11. Physical therapy in obstetrics and gynecology.	4		2			2
Topic 12. Physical therapy in surgery.	4		2			2
Topic 13. Physical therapy in traumatology and orthopedics.	4		2			2
Topic 14. Pediatric Physical Therapy.	4		2			2
Case history	5					5
Module test	4		2			2
Total for the module	55	6	20			29
Total for the semester	90	10	30			50

6.3. Topics of practical classes

№ .	Topic title	Number hours	
		Full-time study	Extramural form of study
1	Topic 1. The basics of sport medicine. Introduction to sport medicine.	2	
2	Topic 2. Physical examination of athletes	2	
3	Topic 3. The exercise prescription. Electrocardiographic responses to exercise testing.	2	
4	Topic 4. Assessment of physical performance.	2	
5	Module test 1	2	
6	Topic 6. General basics of physical rehabilitation: physical modalities, therapeutic exercise	2	
7	Topic 7. Cardiac Rehabilitation (simulation training).	2	
8	Topic 8. Pulmonary Rehabilitation (simulation training).	2	
9	Topic 9. Digestive and Metabolic Diseases Rehabilitation (simulation training).	2	
10	Topic 10. Rehabilitation for the neurologic patient.	2	
11	Topic 11. Physical therapy in obstetrics and gynecology.	2	
12	Topic 12. Physical therapy in surgery.	2	
13	Topic 13. Physical therapy in traumatology and orthopedics (simulation training).	2	
14	Topic 14. Pediatric Physical Therapy.	2	
15	Module test 2	2	
	Total	30	

Including simulation training	8	26,6%

6.4. Self-study

№ .	Topic title	Number hours	
		Full-time study	Extramural form of study
1	Topic 1. The basics of sport medicine. Introduction to sport medicine.	2	
2	Topic 2. Physical examination of athletes	2	
3	Topic 3. The exercise prescription. Electrocardiographic responses to exercise testing.	2	
4	Practical task1	3	
5	Topic 4. Assessment of physical performance.	2	
6	Topic 5. Optimization of the athlete's training process.	5	
7	Module control work 1	2	
8	Topic 6. General basics of physical rehabilitation: physical modalities, therapeutic exercise	2	
9	Topic 7. Cardiac Rehabilitation	2	
10	Topic 8. Pulmonary Rehabilitation	3	
12	Topic 9. Digestive and Metabolic Diseases Rehabilitation.	3	
13	Topic 10. Rehabilitation for the neurologic patient.	2	
14	Topic 11. Physical therapy in obstetrics and gynecology.	2	
15	Topic 12. Physical therapy in surgery.	2	
16	Topic 13. Physical therapy in traumatology and orthopedics	2	
17	Topic 14. Pediatric Physical Therapy.	2	
18	Practical task 2 (Presentation)	5	
19	Practical task3 (Case history)	5	
20	Module control work 2	2	
	Total	**50**	

6.5. Individual work

Case history, student scientific work, report at the student scientific conference.

7. TOOLS, EQUIPMENT AND SOFTWARE THE USE OF WHICH IS PROVIDED FOR THE EDUCATIONAL SUBJECT

(if necessary)

For the educational process, the following are used: tonometer, height meter, scales, centimeter tape, Frolov's breathing apparatus, peak flow meters, pulseoximetry meters. Spirograph, electrocardiograph, cycle ergometer (owned by Uzhhorod City Clinical Hospital in common use).

Students get acquainted with the work of the physical rehabilitation hall, the massage room of the Uzhhorod City Clinical Hospital and center of sports medicine, sanology and physical rehabilitation of the Zakarpattia Regional State Administration.

In addition, didactic materials are used:

- charts
- methodical recommendations for students for each topics

- electronic version of 5 lecture topics
- ECG kits,
- forms of medical documentation
- protocols for the provision of rehabilitation assistance
- approximate sets of exercises for various diseases
- questions, tests for current and final control
- electronic bank of test tasks, bank of test tasks on paper
- situational tasks, task conditions for control work
- UzhNU e-learning website e-learn.uzhnu.edu.ua.

8. RECOMMENDED SOURCES OF INFORMATION

Basic sources

1. Basses of physical rehabilitation in medicine / A. V. Mahlovanyy [et al.]. - Lviv : [s. n.], 2019– 70p.
2. Svistak V.V., Mashura G.Y. The basics of sport medicine. Introduction to sport medicine. Guidelines to practical lessons for IV-year students of the medical faculty №2 of Uzhhorod National University -2020. - p.14.

Additional sources

1. Clinical management of COVID-19. Interim guidance 27 May 2020. WHO. COVID-19 rapid guideline: managing the long-term effects of COVID-19. NICE guideline Published: 18 December.
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Appendix

Results of the further review of the syllabus

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature) (Surname, initials)

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix ___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature) (Surname, initials)

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix ___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature) (Surname, initials)

The syllabus was re-approved on 20___ / 20___ academic year unchanged; with changes (Appendix___).

(underline the correct variant)

Minutes № ____ of "____" _____ 20 ___ Head of the Department _____ _____

(Signature) (Surname, initials)