SYLLABUS

1. General information on the course

Full course name	Physical Rehabilitation, Sports Medicine
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Medical Institute. Department of Physical Therapy, Occupational Therapy and Sports Medicine
Author(s)	Yezhova Olha Oleksandrivna, Voropaiev Dmytro Serhiiovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	1 weeks across 7 semester
Workload	3 ECTS, 90 hours, out of which 40 hours are working hours with the lecturer (10 hours of lectures,30 hours of seminars)
Language(s)	English

2. Place in the study programme

Relation to curriculum	Elective course available for study programme "Medicine"
Prerequisites	There are no specific pre-requisites
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

Formation of general cultural and professional competencies that provide solutions to professional problems in the field of sports medicine and physical rehabilitation, in particular: ability to learn, master modern knowledge and apply them in practical situations, the ability to determine the necessary motor mode and the nature of therapeutic exercises in the treatment of diseases, skills of interviewing and clinical examination of persons engaged in physical culture and sports

4. Contents

Module 1. Sports Medicine
Topic 1 Sports medicine, its tasks and functions The history of the development of sports medicine. The purpose and main objectives of sports medicine. The concept of medical supervision and medical-pedagogical observations. Structure of physical trainings

Topic 2 Physical development: examination and evaluation Research and evaluation of physical development, basic functional systems of the body and physical performance. The essence of the concept of "physical development". Methods of research and assessment of physical development. Classification of functional tests. General characteristics of functional tests. Physical performance and basic tests for its determination
Module 2. Physical Rehabilitation
Topic 3 Physical Rehabilitation General basics of physical rehabilitation. History of the development of physical rehabilitation. Purpose and objectives. General principles of physical rehabilitation. Means of physical rehabilitation. Types and stages of rehabilitation. General characteristics of means of physical rehabilitation
Topic 4 Therapeutic Exercise Therapeutic exercises: concepts, types and effects on the body. Basic concepts and theories on which the principles of application of therapeutic exercises are based. Features of application of therapeutic exercises in cardiology. General characteristics of physical rehabilitation in diseases of the respiratory tract. General characteristics of physical rehabilitation in obstetrics, gynecology, pediatrics. Physical rehabilitation in surgery and traumatology. Physical rehabilitation for diseases and injuries of the nervous system
Topic 5 Patient Management and Clinical Decision-Making Clinical Decision-Making. Requirements for Skilled Clinical Decision-Making During Patient Management. Evidence-Based Practice. A Patient Management Model. Basic components of patient management

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Take sports anamnesis
LO2	Conduct and evaluate the results of the patient's physical development
LO3	Determine the necessary motor mode and means of physical rehabilitation
LO4	Use modern knowledge of physical rehabilitation in their professional activities

7. Teaching and learning activities

7.1 Types of training

Topic 1. Sports medicine, its tasks and functions
lect.1 "Sports medicine, its tasks and functions" (full-time course) History of origin and development of sports medicine. The purpose and objectives of sports medicine. The concept of medical control over athletes and people of different ages. Forms of medical control.

pr.tr.1 "Sports medicine, its tasks and functions" (full-time course) The concept of medical supervision and medical-pedagogical observations. Structure of physical trainings
Topic 2. Physical development: examination and evaluation
lect.2 "Physical development: examination and evaluation" (full-time course) The essence of the concept of "physical development", "functional state", "physical performance". Methods of research and assessment of physical development. Methods of research and assessment of the state of basic functional systems. Classification of functional tests. General characteristics of functional tests. Physical performance and basic tests for its determination.
pr.tr.2 "Physical development: examination" (full-time course) Take sports anamnesis. Measurement of anthropometric indicators: height, weight, chest circumference, waist circumference, hip circumference
pr.tr.3 "Physical development: evaluation" (full-time course) Assessment of physical development using the index method
pr.tr.4 "Functional tests" (full-time course) Conducting and evaluating breathing tests and samples with a change in body position in space
pr.tr.5 "Functional tests" (full-time course) Conducting and evaluating stress tests
pr.tr.6 "Physical development: examination and evaluation" (full-time course) Solving situational tasks for physical development
Topic 3. Physical Rehabilitation
lect.3 "Physical Rehabilitation" (full-time course) History of formation and development of physical rehabilitation. Law of Ukraine "On Rehabilitation in the Field of Health Care". Principles of rehabilitation. The concept of the rehabilitation system. Types of rehabilitation. The concept of a multidisciplinary rehabilitation team. Rehabilitation periods. Clinical rehabilitation management and its stages: a comprehensive examination, evaluation of collected data, formulation of rehabilitation diagnosis based on disorders of body structure and function, functional limitations (activity limitations) and disability (participation limitations), forecasting and planning of rehabilitation care based on tasks, patient-centered interventions. General characteristics of means of physical rehabilitation, in particular therapeutic exercises.
pr.tr.7 "Physical Rehabilitation" (full-time course) General basics of physical rehabilitation. History of the development of physical rehabilitation. Purpose and objectives. General principles of physical rehabilitation. Means of physical rehabilitation. Types and stages of rehabilitation.

pr.tr.8 "Physical Rehabilitation" (full-time course) Indications and contraindications for physical rehabilitation
Topic 4. Therapeutic Exercise
lect.4 "Therapeutic Exercise" (full-time course) The concept of therapeutic exercises. Classification of therapeutic exercises. Examples of therapeutic exercises
pr.tr.9 "Basic of Therapeutic Exercise" (full-time course) Therapeutic exercises: concepts, types and effects on the body. Basic concepts and theories on which the principles of application of therapeutic exercises are based.
pr.tr.10 "Physical rehabilitation in cardiology" (full-time course) Therapeutic exercises in Cardiac Rehabilitation. Therapeutic exercises in the rehabilitation of patients with hypertension. Therapeutic exercises in the rehabilitation of patients who have suffered a myocardial infarction
pr.tr.11 "Physical rehabilitation in neurology" (full-time course) Comprehensive rehabilitation of patients with traumatic brain injury. Therapeutic exercises for pain syndrome, multiple sclerosis, stroke
pr.tr.12 "Physical rehabilitation in orthopedics" (full-time course) Therapeutic exercises for fractures of tubular bones, arthritis and arthrosis, coxoarthrosis, hernia, bursitis, myopathy, osteochondrosis, radiculopathy
pr.tr.13 "Physical rehabilitation in pediatrics" (full-time course) Therapeutic exercises for torticollis, infantile cerebral palsy, dysplasia of the joints
pr.tr.14 "Physical rehabilitation in geriatrics" (full-time course) Therapeutic exercises for sarcopenia, osteoporosis, Parkinson's disease
pr.tr.15 "Physical rehabilitation in oncology" (full-time course) Therapeutic exercises in oncology
Topic 5. Patient Management and Clinical Decision-Making
lect.5 "Patient Management and Clinical Decision-Making" (full-time course) Physical rehabilitation for diseases of the cardiovascular and respiratory systems.Characteristics of the stages of clinical and rehabilitation management of patients with diseases of the cardiovascular and respiratory systems. Characteristics of the stages of clinical rehabilitation management of patients with musculoskeletal disorders.

pr.tr.16 "Patient Management" (full-time course) A Patient Management Model. Basic components of patient management. Characteristics of the stages of clinical and rehabilitation management of patients with diseases of the cardiovascular and respiratory systems.
pr.tr.17 "Patient Management" (full-time course) Examination, establishment of a rehabilitation diagnosis, development of a physical rehabilitation program. Characteristics of the stages of clinical rehabilitation management of patients with musculoskeletal disorders.
pr.tr.18 "Final test." (full-time course) Final test. Solving situational tasks. Calculations

7.2 Learning activities

LA1	Execution of individual calculation and analytical tasks
LA2	Performing practical tasks
LA3	Writing an abstract
LA4	Preparation for current and final control
LA5	Preparation for practical classes
LA6	Preparing multimedia presentations
LA7	Preparation and presentation of the report
LA8	Solving situational problems
LA9	Self-study

8. Teaching methods

Course involves learning through:

TM1	Multimedia lectures
TM2	Practical classes
TM3	Demonstration method
TM4	Critical Thinking
TM5	Information and communication technologies

Lectures and practical classes provide students with knowledge of sports medicine and physical rehabilitation and give the opportunity to evaluate the results of instrumental research of physical development; determine the necessary motor mode and means of physical rehabilitation; use information technology in the professional field to search and analyze information.

The study of the discipline develops the ability of students of abstract thinking, analysis and synthesis; ability to learn, master modern knowledge and apply it in practical situations; ability to use information and communication technologies.

9. Methods and criteria for assessment

9.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	170 ≤ RD ≤ 200
Above the average standard but with minor errors	4 (Good)	140 ≤ RD < 169
Fair but with significant shortcomings	3 (Satisfactory)	120 ≤ RD < 139
Fail – some more work required before the credit can be awarded	2 (Fail)	0 ≤ RD < 119

9.2 Formative assessment

FA1	Peer assessment
FA2	Express testing
FA3	Protection of presentations and abstracts
FA4	Instructions of the teacher in the process of performing practical tasks
FA5	Calculations

9.3 Summative assessment

SA1	Performing an individual task on the selected topic
SA2	Performing practical work
SA3	Final test

Form of assessment:

7 semester		**200 scores**
SA1. Performing an individual task on the selected topic		**80**
	oral report, presentation, abstract	80
SA2. Performing practical work		**40**
	acquisition of practical methods of inspection, performance of calculation tasks, solution of situational tasks	40
SA3. Final test		**80**
	performing tests, calculation tasks, solving situational tasks	80

Form of assessment (special cases):

7 semester		**200 scores**
SA1. Performing an individual task on the selected topic		**80**
	oral report, presentation, abstract	80
SA2. Performing practical work		**40**

	demonstration of practical survey skills	40
SA3. Final test		**80**
	performing tests, calculation tasks, solving situational tasks	80

When mastering the study material, the student is assigned a maximum of 5 points for each practical lesson (the grade is set in the traditional 4-point grading system). At the end of the semester, the arithmetic mean of student performance is calculated. The number of points of the student is calculated by the formula 40 multiplied by the arithmetic mean and divided by 5. The student must perform a research task and present its results in the form of a report with a presentation, the maximum score - 80 points. The maximum number of points for the current educational activity of the student is 120. The mastering of the academic discipline is completed by drawing up a differential test in the form of a written final task containing tests and calculation tasks; estimated at 80 points maximum. Incentive points are added to the grade for the discipline for the implementation of an individual research project (presentation at the conference - 5 points, poster presentation at the conference - 4 points, abstracts - 3 points) and for passing relevant online courses - 3 points (subject to confirmation certificate). The total score in the discipline may not exceed 200 points.

10. Learning resources

10.1 Material and technical support

MTS1	Library funds
MTS2	Multimedia, video and audio, projection equipment (projectors, screens, etc.)
MTS3	Rehabilitation equipment
MTS4	Hardware (movies, radio and TV shows, audio and video recordings, etc.)
MTS5	Rehabilitation simulators
MTS6	Medical facilities / premises and equipment (clinics, hospitals, etc.)
MTS7	Measuring equipment

10.2 Information and methodical support

Essential Reading	
1	Frontera, W.R. Essentials of Physical Medicine and Rehabilitation: Musculoskeletal disorders pain and rehabilitation [Текст] / W. R. Frontera, J. K. Silver, T. D. Rizzo. — 3-rd ed. — Saunders Elsevier, 2015. — 919 p.
2	O'Sullivan, S.B. Improving Functional Outcomes in Physical Rehabilitation [Текст] / S. B. O'Sullivan, T. J. Schmitz. — 2-nd ed. — Philadelphia : F.A. Davis Company, 2016. — 423 p.
3	Sports Medicine and Physical Rehabilitation [Текст] / V. F. Moskalenko, V. A. Shapovalova, V. M. Korshak etc. — К. : Книга плюс, 2010. — 168 с.
Web-based and electronic resources	
4	Physiopedia: https://www.physio-pedia.com/Physiopedia

5	Physiotutors: https://www.physiotutors.com/assessment/