

**Name of the program: Physical Medicine and Rehabilitation
Master Program**

Program Director: Associate Professor Tamar Mosulishvili

Co-Director of the Program: Professor Lela Aptsiauri

Program Scope: 120 ECTS

Qualifications to be awarded: Master of Physical Medicine and Rehabilitation

Admission Requirements:

A person holding a bachelor's degree or an equivalent academic degree is eligible to enroll in the Master's Program in Physical Medicine and Rehabilitation based on successful completion of the Unified Master's Examinations and the university-administered specialty and English language (B2 level) exams.

Additionally, applicants covered under Article 52¹, Paragraph 7 of the Law of Georgia on Higher Education must demonstrate proficiency in the Georgian language through a university-organized exam, which assesses listening, reading comprehension and analysis, and speaking skills (B1 level), or by submitting an official document confirming B1-level proficiency. They must also successfully pass the specialty and English language (B2 level) exams.

Applicants who provide an official document certifying B2-level proficiency in English are exempt from the English language examination.

Language of Instruction: Georgian.

Program Objective:

The objective of the Master's program, in accordance with the mission of the University, is to prepare competitive, highly qualified specialists holding a Master's academic degree in the field of Physical Medicine and Rehabilitation, whose knowledge is based on deep, systematic theoretical and practical foundations and aligned with international standards.

Graduates of the program will possess knowledge, skills, and experience based on modern theoretical, practical, and research components of the field, enabling them to competently conduct scientific research and practical professional activities in physical medicine and rehabilitation.

The program is aimed at:

- Providing graduates with deep, systematic knowledge of the basic and social sciences necessary for professional practice in the field of physical medicine and rehabilitation;
- Teaching modern and advanced approaches, strategies, technical tools, and methods for restoring normal physical functioning in individuals with temporary or permanent special needs, enabling graduates to develop individual and original rehabilitation programs for solving both individual and complex problems;
- Teaching the development and implementation of specific models of rehabilitation strategies based on the analysis of complex data;
- Developing the ability to conduct multidimensional analysis, synthesize data, and evaluate sports, health-promoting, and rehabilitation activities;
- Providing knowledge in the field of children's neurocognitive disorders and strengthening professional skills useful in the medical and physical rehabilitation of children and adolescents with disabilities and special educational needs;
- Teaching the clinical manifestations of traumatological and orthopedic diseases, as well as methods of diagnosis and first aid;

- Teaching the principles of nutrition science and the importance of nutrition through modern strategic approaches for normal human growth and development throughout the entire life cycle;
- Enhancing practical skills in the rehabilitation of behavioral disorders;
- Teaching data processing and statistical analysis using the SPSS for Windows software, employing both standard and complex statistical methods.

Learning Outcomes

Knowledge and Understanding

The graduate:

- Describes and relates modern approaches, strategies, technical tools, and innovative methods for restoring the physical condition of individuals with temporary or permanent special needs;
- Determines the patterns of health, physical development, and functional capacity in both athletes and non-athletes;
- Distinguishes and characterizes human health conditions, assessment scales, psychosocial rehabilitation models, and specific features of rehabilitation for individuals with impairments, and classifies them;
- Discusses and characterizes the main tools and methods of occupational therapy and the specifics of their application;
- Understands the bioregulatory principles of pain management and possibilities of alternative therapeutic interventions;
- Identifies, characterizes, and describes the causes, stages of development, and processes of traumatism;
- Determines and characterizes the features of traumatic injuries and the principles of rehabilitation using physical methods in the post-traumatic period;
- Determines possible complications of traumatic injuries and develops prevention and treatment strategies;
- Identifies and characterizes stages of child growth and developmental disorders, principles of dispensary supervision, and criteria for determining disability status;
- Reviews the main aspects of geriatric rehabilitation and relates them to modern approaches and methods;
- Characterizes clinical manifestations and stages of development of orthopedic diseases and specifies diagnostic and rehabilitation methods;
- Possesses advanced knowledge in nutrition science, enabling independent management of sports training regimes, assessment of health status, and prevention of health and life risks;
- Aligns research activities with statistical research design, methodology, research requirements, sampling principles, fieldwork procedures, and the use of SPSS in statistical analysis.

Skills

The graduate:

- Independently manages physical activity regimes, observes and monitors health status in order to prevent possible health and life risks.
- Describes anatomical characteristics of the human body and the specifics of physical capabilities based on the nature of physical exercises and workloads;

- Determines the degree of motor skill limitations, physical developmental disorders, and range of movement;
- Evaluates behavioral management strategies and develops rehabilitation interventions;
- Manages dietary regimes, energy expenditure, and hydration balance, providing appropriate recommendations in cases of imbalance or disorder;
- Selects individual rehabilitation tactics for various diseases, injuries, or traumas and monitors health conditions to reduce health and life risks;
- Detects deviations at early stages, assesses health conditions caused by physical and mental developmental delays, and records changes;
- Selects medical and physical rehabilitation methods and tools to restore and maintain functional abilities and optimize the patient's psycho-physical condition;
- Plans and conducts research in the field of physical medicine and rehabilitation using modern scientific methods and evidence-based approaches;
- Safely and effectively uses therapeutic and rehabilitation tools according to the patient's functional condition;
- Assesses the health and functional status of young children with disabilities, prepares professional assessments, and develops appropriate individual rehabilitation plans;
- Participates in multidisciplinary teams implementing medical-social rehabilitation programs for children with disabilities and collaborates effectively with team members.
- The graduate is able to obtain reliable information, identify problems, manage them within their professional competence, and determine appropriate solutions through comparison of modern methods.
- Obtains, analyzes, and critically evaluates information in the field of physical medicine and rehabilitation in order to identify problems and determine effective ways to manage them;
- Analyzes scientific research conducted in the field, processes and interprets complex data, and develops logical and analytical reasoning based on the results;
- Evaluates the outcomes of sports, health-promoting, and rehabilitation activities, analyzes and summarizes data, and formulates conclusions aimed at improving the effectiveness of practical interventions;
- Analyzes complex or incomplete information, including recent scientific research and data, critically evaluates results, and formulates conclusions considering social and ethical responsibilities;
- Identifies new and original approaches to solving complex problems in a multidisciplinary environment and independently conducts research while adhering to the principles of academic integrity.
- The graduate is able to communicate effectively with different social groups based on well-reasoned arguments and conclusions, including with individuals who have communication difficulties.
- Identifies deviations and risks in the rehabilitation process and determines effective problem-solving strategies;
- Conducts written and oral communication in various situations, in academic and professional environments as well as with non-specialists, in Georgian and foreign languages, and evaluates communication effectiveness;

- Conducts effective communication with different social groups, including individuals with communication difficulties, based on well-reasoned conclusions and arguments;
- Conducts professional negotiations, manages conflict situations, and maintains a proper professional position in accordance with academic, ethical, and practical standards;
- Analyzes complex or incomplete information in physical medicine and rehabilitation, integrates and interprets data, evaluates results, and formulates reasoned conclusions reflecting social, ethical, and professional responsibilities;
- Processes and interprets statistical data and performs complex analysis using SPSS, ensuring the reliability and purposefulness of research results;
- Critically analyzes and evaluates new, complex, and controversial ideas and approaches and independently determines effective strategies for solving complex problems;
- Participates in professional discussions on issues of physical medicine and rehabilitation, substantiates new knowledge in relation to existing evidence, and presents well-reasoned conclusions to colleagues and the wider public.

Responsibility and Autonomy

The graduate is able to independently manage their learning process, take responsibility for their professional development, and recognize and evaluate issues within the field of physical medicine and rehabilitation in relation to professional responsibilities.

- Plans and independently manages their own learning process, determines learning needs in specific directions, and takes responsibility for professional development;
- Recognizes health problems and evaluates them in relation to professional responsibilities;
- Determines the scope of their competence within the framework of a value system and works in accordance with professional ethics;
- Recognizes the importance of physical medicine and rehabilitation services for maintaining, restoring, and preventing health problems in the population.

Program Structure

The master's program is a 2-year program consisting of four semesters. The total study load over the two years includes 120 credits, with 30 credits per semester, and 60 credits per year.

This includes:

Core mandatory courses – 15 credits

Specialization mandatory courses – 69 credits

Elective mandatory courses – 6 credits

Specialization practice – 4 credits

Master's thesis – 26 credits

1 credit = 25 hours

One academic year: 42 weeks

Semester duration: 21 weeks (including: 15 weeks of classes, 4 weeks of exams, and 2 weeks for additional exams).

Knowledge Assessment System:

When assessing the knowledge of master's students in the master's educational program, the Gemoedi University follows the European Credit Transfer and Accumulation System (ECTS); the "Law on Higher Education" of Georgia and the "Rules for Calculating Credits for Higher Educational Programs" approved

by the Order of the Minister of Education and Science of Georgia on January 5, 2007, No. 3, which defines the evaluation system as follows:

a) Five types of positive assessments:

- a.a) (A) Excellent – 91-100 points;
- a.b) (B) Very Good – 81-90 points;
- a.c) (C) Good – 71-80 points;
- a.d) (D) Satisfactory – 61-70 points;
- a.e) (E) Sufficient – 51-60 points.

b) Two types of negative assessments:

- b.a) (FX) Did not pass – 41-50 points, meaning that the student needs to do more work to pass and is allowed to retake the exam once by independent work.
- b.b) (F) Fail – 40 points or lower, meaning that the student's work is insufficient and the course/subject needs to be retaken.

A student's semester assessment is determined by the sum of intermediate assessments and the final assessment grades, totaling 100 points.

The semester assessment includes two components: intermediate and final assessments. Each component has its own percentage weight in the overall assessment system, which is determined by the instructor (1) 70/30 or (2) 60/40. In the first case, the intermediate assessment accounts for 70% of the grade, while the final assessment accounts for 30%. In the second case, the intermediate assessment is worth 60%, and the final assessment is worth 40%.

The intermediate assessment is divided into components (intermediate exams, seminar/practical activity, presentations, quizzes, situational tasks, essays, etc.), with the percentage of each component determined by the course instructor.

The minimum competency threshold for the intermediate assessment, which is a prerequisite for taking the final exam, is at least 50%.

The final exam is an essential part of the final assessment. The minimum competency threshold for the final assessment is 50%+1. If the student's score is between 41-50 points, they are allowed to retake the exam once. If the score is lower than 41, the student must retake the course/subject. If the student's intermediate assessment score is equal to or higher than 51 points, they are required to pass the final assessment and meet the minimum competency threshold.

Students are allowed to retake the final exam within the same semester, no less than 5 days after the announcement of the final assessment results.

The components of assessment are selected by the course leader based on the subject's specifics.

- In courses that involve OSCE (Objective Structured Clinical Examination), the final assessment is divided into two components:

1. Test - The test consists of 20 questions, with each question worth 1 point. Total possible points: 20. The minimum competency threshold is 10 points.

2. OSCE (Objective Structured Clinical Examination) - The student takes the exam in 5 active exam rooms. Each room has a duration of 4 minutes. The maximum score for each station is 4 points, with a total of 20 points. The minimum competency threshold is 11 points.

Score Ranking:

- 4 points – Demonstrates practical skills excellently.
- 3 points – Demonstrates practical skills well.
- 2 points – Demonstrates practical skills satisfactorily.

- 1 point – Demonstrates practical skills with errors.
- 0 points – Fails to perform the task practically.

• In courses that include OSPE (Objective Structured Practical Examination), the final assessment consists of two components:

1. Test - There are 20 questions, each worth 1 point, totaling 20 points. The minimum competency threshold is 10 points.

2. OSPE (Objective Structured Practical Examination) - The student takes the exam in 5 active exam rooms. Each room has a duration of 4 minutes. The maximum score for each station is 4 points, with a total of 20 points. The minimum competency threshold is 11 points.

Score Ranking:

- 4 points – Demonstrates practical skills excellently.
- 3 points – Demonstrates practical skills well.
- 2 points – Demonstrates practical skills moderately.
- 1 point – Demonstrates practical skills with errors.
- 0 points – Fails to perform the task practically.

The **OSCE** exam takes place in the university's rehabilitation clinic.

The **OSPE** exam takes place in the university's simulation clinic.

In case of failing to meet the minimum competency threshold, the student retakes the component(s) of the final assessment in which they did not pass.

Master's Thesis Assessment

The assessment of the master's thesis is carried out using a 100-point system.

The thesis grade is calculated as the arithmetic average of the scores given by the committee members.

The public defense of the master's thesis is evaluated based on the following criteria:

- Structure of the thesis - 5 points (minimum competency threshold - 2 points)
- Consistency between the objectives and research methods - 15 points (minimum competency threshold - 8 points)
 - Diversity and validity of the sources used - 10 points (minimum competency threshold - 5 points)
 - Citation technique - 5 points (minimum competency threshold - 3 points)
 - Presentation technique and technology - 5 points (minimum competency threshold - 2 points)
 - Relevance and presentation of the topic - 15 points (minimum competency threshold - 8 points)
 - Ability for reasoning and critical analysis - 15 points (minimum competency threshold - 8 points)
 - Conclusions and recommendations - 10 points (minimum competency threshold - 5 points)
 - Research planning and implementation - 15 points (minimum competency threshold - 8 points)
 - Compliance with regulations - 5 points (minimum competency threshold - 2 points)

The master's thesis will be considered successfully completed if the student accumulates 51 or more points during the evaluation.

If the master's thesis is rated with 41-50 points, the student is allowed to resubmit the revised thesis in the next semester.

If the master's thesis is rated with 0-40 points, the student loses the right to resubmit the same thesis.

Employment Field

A graduate of the Master's program in Physical Medicine and Rehabilitation will have the opportunity to work in the public and private sectors, in sports federations, sports clubs as an assistant team doctor, as a physical therapist and rehabilitation specialist, in wellness and fitness clubs as a rehabilitation specialist and physical therapist, in any healthcare institution as a rehabilitation specialist, and in other specialized scientific and educational institutions as per the applicable legislation.