

Subject	BASIS OF PHYSICAL THERAPY
Study Program	Three years professional study for graduated physiotherapist
Code	SF-212
Year of study	Second
Semester	Third and Fourth
Total number of classes	185
Credits	11
Type of subject	Obligatory
Preconditions	Fulfilled requirement to register for second year
Executed by	Chair (Catheda) of Physical Medicine and Rehabilitation
Responsible Teacher	Associate Professor Erieta Nikolikj-Dimitrova, M.D., Ph.D.
Address	Institute of Physical Medicine and Rehabilitation, Elisie Popovski Str., No. 28, 1000 Skopje, tel. +389 2 3176 584 e-mail: enikolic@ medf.ukim.edu.mk
Key words	Study for physiotherapists, professional subjects, physical therapy
Goals of study	<ul style="list-style-type: none"> - To be acquainted with the artificial sources of physical agents - To get knowledge for all types of physical agents (modalities), used in the physical therapy. - To acquire knowledge for their origin, the biological and physiological action of the physical agents, their dosage, as well as the indications and contraindications, when applied. - To be introduced with the way of application of the physical agents and precautions and possible errors during the work. - To understand the role of the physical therapy in the process of the rehabilitation of people with injury or disease.
Class descriptions (brief content)	<p>Theoretical instruction (40 lessons):</p> <ul style="list-style-type: none"> ✓ Electrotherapy: basic information ✓ Electrotherapy: galvanic current, iontophoresis, ✓ Electrotherapy: impulse currents: diadynamic currents, faradic and neo-faradic currents, ultra-stimulating currents, interferential currents, sinusoidal modular currents. ✓ Electrical stimulation ✓ Functional electrical stimulation (FES) ✓ Transcutaneous electrical nerve stimulation (TENS). ✓ High frequency currents: short waves and similar. ✓ Electrodiagnostics, Classic electrodiagnostics, ✓ Biofeedback ✓ Therapy with electromagnetic field ✓ Therapeutic ultrasound ✓ Light therapy: infrared rays, ultraviolet rays, laser. ✓ Heat therapy, paraffin baths ✓ Ice therapy,

	<ul style="list-style-type: none"> ✓ Hydrotherapy ✓ Inhalation therapy ✓ Spinal traction <p>Practical instruction (45 lessons):</p> <ul style="list-style-type: none"> - Training the physiotherapist for the methods of application of each type of electrotherapy. - Training the physiotherapist for the methods of application of electromagnetic field therapy, therapeutic ultrasound, light therapy, heat therapy, ice therapy, hydrotherapy, traction. <p>Practice (100 lessons): Practice is mandatory and is carried out in different departments under guidance of a mentor-teacher and physiotherapist responsible for that department. The student is obliged to engage in all activities in the course of the full-time working hours and keep a log of its activities.</p>														
Organization	<p>Theoretical instructions: 40 lessons Practical instructions: 45 lessons Practical training: 100 classes</p>														
Methods of Learning	Lectures, classes of practical instruction, practical training														
Provided results of study	<p>Knowledge and understanding: The student will acquire knowledge for the different types of physical agents, their physiological and therapeutic action, indications and contraindications.</p> <p>Key skills: The student will know how to use the different methods of application of the different types of physical agents. The student will be able to avoid the dangers and the possible errors while applying the methods of the physical therapy.</p>														
Specific teaching recommendations	<p>The student is obligated to take part in all provided activities, including participation in continuous knowledge examinations in order to get a signature.</p> <p>Ranking the student's activities:</p> <table border="1"> <thead> <tr> <th>Type of activity</th><th>Points</th></tr> </thead> <tbody> <tr> <td>Theoretical instruction*</td><td>2.5 – 7.5</td></tr> <tr> <td>Practical instruction**</td><td>9 - 18</td></tr> <tr> <td>Practical training***</td><td>7.5 - 7.5</td></tr> <tr> <td>Continuous examinations-2</td><td>30 - 42</td></tr> <tr> <td>Practical examination</td><td>10-25</td></tr> <tr> <td>Total:</td><td>60-100</td></tr> </tbody> </table>	Type of activity	Points	Theoretical instruction*	2.5 – 7.5	Practical instruction**	9 - 18	Practical training***	7.5 - 7.5	Continuous examinations-2	30 - 42	Practical examination	10-25	Total:	60-100
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	<p>* Presence at theoretical instruction: 51% - 60% - 2,5 points 61% - 70% - 3.5 points 71% - 80% - 4.5 points 81% - 90% - 5.5 points 91% - 100% -7.5 points</p> <p>** Practical instruction: every practical lesson brings 0,4 point (45 exercises) presence – 0.2 points activity at practical lesson– 0.2 points</p> <p>*** Success in practical training Presence: 51% - 60% - 0,5 points 61% - 70% - 1.0 points 71% - 80% - 1.5 points 81% - 90% - 2.0 points 91% - 100% - 2.5 points</p> <p>Activity: Satisfactory: 3 Good: 4 Excellent:5</p> <p>Continuous examination (colloquium): The student regularly attend theoretical and practical lessons in order to access the continuous examination. Examinations are written (multiple choice test). The student is obliged to access the colloquium, otherwise he does not acquire the right to get a signature at the end of the semester. The student is obligated to win minimum points (60%), in both continuous assessments, before he access the final exam. If the student passed one of the two colloquiums, he would access for the complete final exam. If the student fails to pass both colloquiums, he has no right to access the complete final exam.</p> <p>Final exam: The student who has passed both colloquiums is allowed to take the final examination (practical). It is carried out in two examination periods - June/July and/or August/September. It consists of 3 tasks (skills) that the student should do. The student is allowed to pass the practical examination only if he/she has completed the practice, got a signature of the subject and if he/she gets minimum points in both colloquiums.</p> <p>Complete Final Exam:</p>
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	<p>The student is allowed to pass complete final exam if he/she failed to get minimum points (60%) in one of the two colloquiums. The examination is a combination of the colloquium that is not passed and the practical exam.</p> <p>The student is obliged to first pass the colloquium that he/she failed and then pass the practical exam.</p> <p>If the student will not pass that colloquium, he/she has no right to pass the practical examination i.e the examination must not be graded.</p> <p>Completing the complete grade:</p> <p>The mark for the entire examination is formed in accordance with the table of marks, and on the basis of the sum of points collected from all the activities and also including the continuous checks and the practical examination.</p> <p>The colloquiums that were passed as a condition to pass the final examination are valid in the next six running sessions (no matter if the student appeared or not at the examination), after that the student attends the lectures for that subject for the second time.</p> <p>PART-TIME STUDY:</p> <p>Forty percent (40%) of the provided theoretical and practical instructions, as well as practical training (practice) is performed.</p> <p>Practice is organized in agreement with the students.</p> <p>The exam is carried out in EXAM SESSIONS and consists of:</p> <ul style="list-style-type: none"> - Multiple choice test; - Practical exam (carried out if the test is passed, otherwise same rules as for the full-time students are applied). <p>The grade of the complete exam is formed according to the table of grades, and on the basis of the sum of points gained from all the activities.</p>
Teaching materials	<p>Basic:</p> <p>Erieta Nikolikj-Dimitrova. Fundamentals of physical therapy. Laserjet, Skopje, 2009</p>