

Subject	CLINICAL KINESIOLOGY AND KINESIMETRY
Study Program	Three year professional studies for graduated physiotherapist
Code	SF-121
Year of study	First
Semester	Second
Total classes	310
Credits	19
Type of subject	Obligatory
Preconditions	None
Executed by	Chair of Physical Medicine and Rehabilitation
Responsible Teacher	Associate Prof. Erieta Nikolic-Dimitrova, M.D., Ph.D.
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Key words	Studies for physiotherapists, professional subjects, clinical kinesiology, kinesimetry
Goals of study	<ul style="list-style-type: none"> • to acquire the basic knowledge about the composition and structure of the whole musculoskeletal system, all joints and their movements • to acquire knowledge about all the muscles in the body and their role in movement of separate joints and segments • to learn to measure the rang of motion in the joints and the spine • to learn to measure circumference of an extremity and the length of an extremity • to acquire basic knowledge of anthropometry • to get knowledge about biomechanics of the gait. Gait on steep terrain, gait on stairs. Gait on crutches. • To get knowledge about manual muscle testing.
Class descriptions (brief content)	<p>Theoretical instruction (60 lessons)</p> <ul style="list-style-type: none"> • Movements of the spine, head and neck, lumbar spine • Thorax and breathing • Movements in the shoulder girdle • Movements in the elbow • Movements in the wrist and hand • Movements in the hip • Movements in the knee • Movements in the ankle and foot • Movements in the temporomandibular joint • Biomechanics of the gait • Gait on steep terrain. Gait on stairs • Gait with aid of crutches • Analysis of some typical movements • Anthropometry • Manual muscle testing of the upper extremity muscles

	<ul style="list-style-type: none"> • Manual muscle testing of lower extremity muscles • Manual muscle testing of the muscles of the trunk and face • Motor development of the child <p>Practical instruction (90 lessons)</p> <ul style="list-style-type: none"> • Training the physiotherapist for measurement the extremity length • Training the physiotherapist for measurement the extremity circumference • Training the physiotherapist for measurement rang of motion in the joints • Training the physiotherapist for measurement rang of motion in the spine • Training the physiotherapist for making basic anthropometric measurements • Training the physiotherapist for application different aids for walking • Training the physiotherapist for performing manual muscle testing of the upper extremity muscles • Training the physiotherapist for performing manual muscle testing of the lower extremity muscles • Training the physiotherapist for performing manual muscle testing of the muscles of the trunk and face <p>Practice (160 classes):</p> <p>The practice is obligatory and is performed at different departments under guidance of a mentor-professor and physiotherapist responsible for that department. The student is obligated to be included in all the activities during the whole working time, and writes a diary for his activities.</p>
Organization	<p>Theoretical instruction: 60 lessons</p> <p>Practical instruction: 90 lessons</p> <p>Practice: 160 classes</p>
Methods of study	Lectures, classes in practical instruction, practice, practical training
Provided results of study	<p>Knowledge and understanding:</p> <p>The student will acquire knowledge about the composition and function of different parts of musculoskeletal system, biomechanics of the gait and the gait with aids and will learn scientific foundations of anthropometry as well.</p> <p>Key skills:</p> <p>The student will be able to measure the extremity length, to measure extremity circumference and rang of motions in the joints of the extremities and the spine, as well as to perform manual muscle testing of the extremities, trunk and face.</p>
	The student is obligated to follow all provided activities actively including participation in continuous knowledge

Specific recommendation for instruction

examinations in order to get signature:

Ranking student's activities:

Type of activity	Points	
	Min.	Max.
Theoretical instruction*	7.5	12
Practical instruction**	10	18
Practice***	2.5	10
Continuous examinations-2	25	40
Final exam-practical	15	20
Total:	60	100

* Presence at theoretical instruction:

51% – 60% : 7.5 points

61% - 70% : 8.5 points

71% - 80% : 9,5 points

81% - 90% : 10 points

91% - 100% : 12 points

** Practical instruction: every training class brings 0,2 point (90 lessons)

presence: 0.1 point

activity at class: 0.1 point

Successfulness at practice:

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

Activity:

Satisfactory: 2

Good: 3

Excellent: 5

A continuous examination (colloquium):

The student need to attend theoretical and practical instruction regularly in order to access the continuous examination. The examinations are written (multiple choice test).

The student is obligated to access the colloquium, otherwise he does not acquire the right for signature at the end of the semester.

The student is obligated to win minimum points (60%) from the both continuous examinations when he accesses to the final exam.

If the student pass one of the two colloquiums he accesses the complete final exam.

If the student does not pass both the colloquiums he does not have the right to access the complete final exam.

Final exam:

	<p>The student who has passed the both colloquiums takes a final exam (practical). It is taken in an exam terms. (January/February, June/July and/or August/September). It consists of three tasks (skills) that student need to execute.</p> <p>Taking the practical exam is allowed only if the student finishes the practice, get a signature for the subject and win minimum points from both colloquiums.</p> <p>Complete final exam</p> <p>The student takes complete final exam if he did not win minimum points (60%) at the one of the two colloquium. The exam represents a combination of the colloquium that has not been passed and the practical exam.</p> <p>The student is obligated first to pass the unpassed colloquium, a after that to access for taking the practical exam.</p> <p>If the student does not pass the unpassed colloquium, he does not have the right to take practical exam, i. e. the exam must not be graded..</p> <p>Forming the complete grade:</p> <p>The grade of the complete exam is formed from the table of grades and on basis of the sum of points gained from all activities, including the continuous examinations and practical exam.</p> <p>The passed colloquiums as a precondition for taking final exam are valid six subsequent sessions (no matter whether the student accessed the exam or not) after which the student have to take the lectures again..</p> <p>PART-TIME STUDY:</p> <p>Forty percent (40%) of the provided theoretical and practical instruction and up to 40% of the PRACTICE are performed. The practice is organized according to the agreement with the students.</p> <p>The exam is performed in EXAM SESSIONS and is consisted of:</p> <ul style="list-style-type: none"> • multiple choice test • practical exam (performed after passing the test, otherwise the same rules as for the regular students apply) <p>The grade of the complete exam is formed according to the table of grades, and on basis of the sum of points gained from all the activities.</p>
Learning devices	<p>Basic:</p> <p>Authorized lectures from the Chair</p> <p>Additional:</p> <ul style="list-style-type: none"> • Jevtic M: Biomehanika lokomotornog sistema. Univerzitet u Kragujevcu. Medicinski fakultet, Kragujevac, 2004.

	<ul style="list-style-type: none">• Zec Z, Konforti N: Ispitivanje snage misica (manuelna metoda). Visa medicinska skola, Beograd, 1982.• Kaludjerovic D, Nikolic S: Praktikum iz kineziologije. Visa medicinska skola, Beograd, 1990.
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