

Faculty of Medicine / APPLIED PHYSIOTHERAPY /

Course:				
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exercises+Laboratory)
14020	Mandatory	3	3	2+1+0
Programs	APPLIED PHYSIOTHERAPY			
Prerequisites	There is none.			
Aims	Students should learn and master the basic concepts, principles, problems, and procedures in physiotherapy of the third age of life.			
Learning outcomes	Upon completion of this study program, students will know the basic concepts, principles, problems, and procedures in physiotherapy of the third age of life They will know possible contraindications for carrying out certain physiotherapy procedures in elderly people.			
Lecturer / Teaching assistant	Ph.D. Vesna Samardžić			
Methodology	Lectures and exercises. Preparation of seminar papers. Work in the library. Work at the computer, and the final exam.			
Plan and program of work				
Preparing week	Preparation and registration of the semester			
I week lectures	Basic concepts of physiotherapy for the elderly. Physiological changes related to aging.			
I week exercises	Basic concepts of physiotherapy for the elderly. Physiological changes related to aging. Basic principles of physiotherapy - practicing communication, approach, address, behavior, education, demonstration...			
II week lectures	Implications of the elderly population on the rehabilitation process: demography, morbidity and mortality. Communication, value, and quality of life in the elderly.			
II week exercises	Communication with elderly people with special reference to hearing, vision deficits, and unintelligible speech. Training. Special emphasis on respecting the elderly. Communication aids - use. Aids to encourage communication, laughter, touch, and recall.			
III week lectures	Arthrokinesiological changes related to aging. Sensorimotor changes and adaptation in people of the third age.			
III week exercises	Arthrokinesiological changes related to aging. Sensorimotor changes and adaptation in people of the third age.			
IV week lectures	Principles in physiotherapy of elderly people. Health status, clinical diagnosis, and management model. Functional assessment of the elderly. Sensory changes in the elderly and designing the environment. Cognitive disorders. Depression. Geriatric pharmacology.			
IV week exercises	Principles in physiotherapy of elderly people. Health status, clinical diagnosis, and management model. Functional assessment of the elderly. Sensory changes in the elderly and designing the environment. Cognitive disorders. Depression. Geriatric pharmacology. Mini-Mental Test. Recognizing depression, characteristic behavior. Recognizing the impact of medications on patients behavior - through patient reports.			
V week lectures	Problems and procedures in geriatric physiotherapy. Functional training. Disorder of ventilation and respiration in elderly persons.			
V week exercises	Problems and procedures in geriatric physiotherapy. Functional training. Disorder of ventilation and respiration in elderly persons. Functional physiotherapeutic assessment and goals of physiotherapy in hospitals, rehabilitation facilities, and in the community. Physical therapy interventions in different settings. Breathing strategies. Tests - chair step test. Presentation of the patient.			
VI week lectures	Endurance training in the elderly.			
VI week exercises	Endurance training in the elderly. Determination of VO2 max, by indirect method. Designing conditioning programs for elderly people based on Maximum Heart Rate. Presentation of the patient.			
VII week lectures	Muscle fatigue and muscle endurance disorders in the elderly. Posture in people of the third age.			
VII week exercises	Muscle fatigue and muscle endurance disorders in the elderly. Posture in people of the third age. Recognizing the problem of muscle deconditioning and the characteristic posture of old people, adapted tests and physical therapy interventions.			
VIII week lectures	Balance and falls in the elderly: problems of evaluation and treatment. Movement of the elderly: evaluation and intervention strategy.			

VIII week exercises	Balance and falls in the elderly: problems of evaluation and treatment. Movement of the elderly: evaluation and intervention strategy. Patient presentations - various tests, adapted to individual patients, designing a program of balance exercises to achieve functional independence.
IX week lectures	Urinary incontinence and pelvic floor weakness in the elderly.
IX week exercises	Urinary incontinence and pelvic floor weakness in the elderly. History of incontinence. Objective assessment, Oxford scale. Pelvic floor muscle contraction training technique. Progression in exercises.
X week lectures	Chronic dermal ulcers in old people.
X week exercises	Chronic dermal ulcers in old people, recognition of the difference in appearance, subjective and objective manifestations of ulcers of different etiology. Evaluation of the stage of the wound. Assessment of the risk of wound formation. Diabetic neuropathy-monofilament test. Preventive measures. Physical therapy interventions in promoting wound healing.
XI week lectures	Pain in the elderly.
XI week exercises	Pain in the elderly, physiotherapeutic assessment-pain assessment. Physical therapy interventions for pain control.
XII week lectures	Osteoporosis and osteoporotic fractures in the elderly.
XII week exercises	Osteoporosis and osteoporotic fractures in the elderly. Physiotherapy interventions aimed at preventing falls, muscle strengthening exercises - resistance modalities and postural control exercises.
XIII week lectures	Brain apoplexy in old people.
XIII week exercises	Brain apoplexy in old people. Assessment of the level of functional ability. Selection of physical therapy interventions.
XIV week lectures	Evidence-based practice in the process of improving the quality of physiotherapy for the elderly.
XIV week exercises	Evidence-based practice in the process of improving the quality of physiotherapy for the elderly. Selection of keywords to find the best evidence on the effectiveness of physical therapy interventions, recognition of research quality, possibilities, and advantages of implementation in practice.
XV week lectures	Education as a therapeutic intervention for the elderly. Ethical and legal problems in geriatrics.
XV week exercises	Education as a therapeutic intervention for the elderly - demonstration, analysis, practical examples.
Student workload	Weekly 3 credits x 40/30 = 4 hours Structure: 2 hours of lectures 1 hour of exercises 1 hour of individual student work (preparation for laboratory exercises, colloquiums, homework) including consultations In the semester Classes and final exam: (4 hours) x 16 = 64 hours Necessary preparation before the beginning of the semester (administration, registration, certification): 2 x (4 hours) = 8 hours Total workload for the course: 3 x 30 = 90 hours Supplementary work for exam preparation in the make-up exam period, including taking the make-up exam from 0 - 30 hours. Load structure: 64 hours (teaching) + 8 hours (preparation) + 18 hours (additional work)
Per week	Per semester
3 credits x 40/30=4 hours and 0 minuts 2 sat(a) theoretical classes 0 sat(a) practical classes 1 excercises 1 hour(s) i 0 minuts of independent work, including consultations	Classes and final exam: 4 hour(s) i 0 minuts x 16 =64 hour(s) i 0 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 4 hour(s) i 0 minuts x 2 =8 hour(s) i 0 minuts Total workload for the subject: 3 x 30=90 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 18 hour(s) i 0 minuts Workload structure: 64 hour(s) i 0 minuts (courses), 8 hour(s) i 0 minuts (preparation), 18 hour(s) i 0 minuts (additional work)
Student obligations	Students are required to attend classes and seminars, to prepare for seminars, to work on and submit seminar papers and to actively participate in seminar classes.
Consultations	Consultations are organized as needed.
Literature	1. Heap K. Komunikacija sa starima. Izdavač u Crnoj Gori i Norveškoj: Dom starih Grabovac - Risan i Catinha Guldberg-senteret. Oslo/Risan 2006. 2. Guccione AA: Geriatric Physical Therapy. Mosby, 2000. 3. Pickles B, Compton A, Cott C, Simpson J, Vandervoort A: Physiotherapy with Older People. WB Saunders Company Ltd, 1995. 4. Avers D, Wong R. Gucciones Geriatric Physical Therapy: Fourth edition. Elsevier, 2019. 5. Best Martini E, Jones-Di Genova KA. Exercise for Frail Elders: Second edition. Human Kinetics, 2014. 6. Bonder BR, Dall Bello-Haas V. Functional Performance in

			Older Adults: Fourth edition. F.A.Davis Company, 2018.			
Examination methods			Attendance and monitoring of lectures and exercises is evaluated with a maximum of 5 points; -1 seminar paper is evaluated with a total of 5 points; - 2 colloquiums are evaluated with a total of 40 points; The final exam is written and consists of questions covering the material of the entire course (lectures and exercises). At the final exam, students can achieve a maximum of 50 points, and the passing threshold is 50% of the completed exam, i.e. at least achieved 25 points. - A passing grade is obtained if at least 50 points are accumulated cumulatively.			
Special remarks			None			
Comment			None			
Grade:	F	E	D	C	B	A
Number of points	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points