

Course Title	Physiotherapy in Special groups				
Course Code	PHYS302				
Course Type	Compulsory				
Level	Bachelor (Level 1)				
Year / Semester	3 ^d / Spring				
Instructor's Name	Dr Vasiliki Sakellari, Michail Pantouveris				
ECTS	6	Lectures / week	2	Laboratories/week	2
Course Purpose	<p>The purpose of the course is to familiarize students in the assessment, collection, the evaluation of special groups of people such as the elderly, the mentally ill and other categories of patients such as mental health issues and gynecological problems. The course prepares students with the necessary knowledge and practical techniques in the appropriate evaluation and assessment of the findings of each special patient category. In addition, it prepares students to conduct a patient centered physiotherapy intervention programme in these special groups of patients based on the characteristic feature of each category.</p>				
Learning Outcomes	<ul style="list-style-type: none"> • Students upon successful completion of the course will be able to: • understand the effect of aging on the biological structures, motor and mental skills of the elderly • record and consider skeletal, motor, behavioral, mental adaptations using appropriate "tools" of recording and assessment • have the flexibility to adapt specialized physiotherapy skills in the assessment and rehabilitation of special groups of people • design evidence-based intervention programs with exercise, skills training such as safe movement and counseling to prevent falls, improve balance, increase self-confidence, reduce fear of falling and promote an active and healthy lifestyle in older people • participate with a key role in clinics, such as fall clinics, that provide comprehensive assessment, to identify underlying pathological conditions (such as osteoporosis) and by referring to other specific services as well as providing individual advice, motivation and support • organize physiotherapeutic interventions aimed at preventing and restoring common pathological conditions and disorders of special groups • implement rehabilitation programs, in cooperation with specialized scientists • identify the short- and long-term objectives of the physiotherapeutic interventions 				

	<p>Upon completion of the laboratory part of the course, the student is expected to be able to:</p> <ul style="list-style-type: none"> • conduct a full subjective and objective evaluation in bi-different population groups of patients (elderly, gynecological, burn, cancer patients, amputees, psychiatrics, etc.) • choose through clinical reasoning and the of each group evaluation findings, the appropriate research-documented interventions • apply physiotherapeutic interventions appropriately addressing difficulties in cooperation and communication with patients • demonstrate knowledge of the role of the physiotherapist in special patient population groups and the ability to cooperate with the multidisciplinary team • demonstrate knowledge of the role of the physiotherapist in the community 		
Prerequisites	None	Co-requisites	None
Course Content	<ul style="list-style-type: none"> • Amputations <ul style="list-style-type: none"> - Categorization of amputations - lower limb amputations - upper limb amputations – abutment - Physiotherapeutic treatment - preoperative and postoperative physiotherapy, Appropriate / inappropriate amputation sites in various positions - Maintenance or recovery of muscle strength in amputees - Care of the amputation - avoidance of edema and inflammation, - Prevention of adhesions and improvement of circulation, - Gait retraining - retraining of others functional activities, Prostheses - types of prostheses - methods of evaluating the application of prosthesis, retraining a patient in prosthesis placement, retraining in performing daily activities, - Emotional, social and professional adaptation of amputees • Obstetrics-Gynecology <ul style="list-style-type: none"> - Anatomical and physiological adaptations of the female organism during pregnancy, stages of childbirth, purposes of special physiotherapy in pregnancy, - Exercises and relaxation positions, goals - before childbirth - during childbirth, exercises to stimulate circulation and metabolism and stress effects on the lower extremities during pregnancy, - Exercises for contraction and strengthening of the abdominal muscles, exercises to improve the contraction of the whole body, - Physiotherapy after childbirth, • Physiotherapy in the elderly <ul style="list-style-type: none"> - Characteristics of elderly people, adjustments of various systems with age, 		

	<ul style="list-style-type: none"> - Prevention of falls, - Osteoporosis and exercise, - Obesity and exercise • Physiotherapy in burns and skin ulcers <ul style="list-style-type: none"> - Types of burns, impact of burns on the body - Skin ulcers (diabetic, pressure, healing stages) - Role of physiotherapy in prevention and healing - The role of Physiotherapy in burn disease - Mechanical skin behavior - Stages of burn healing • Cancer patients <ul style="list-style-type: none"> - Types of cancer, causes and epidemiology - Pathophysiological characteristics - Physical/organic effects/symptoms of cancer - Psychological effects/symptoms of cancer - Social Impact/symptoms of cancer - Types of cancer treatments/interventions and their side effects - Cancer pain, effects and management methods - Palliative care - The role of the multidisciplinary team in the treatment of cancer - The role of physiotherapy in the treatment of cancer (interventions, means, techniques) • Psychiatric and concomitant behavioral problems <ul style="list-style-type: none"> - People with psychiatric and other behavioral problems, obese people, people with motor and other concomitant problems (eg deafness, blindness, etc.) • Physiotherapy of special population groups in the community <ul style="list-style-type: none"> - Elderly - Chronically bedridden neurological patients - Head and multi-injury patients - Patients under mechanical ventilation and oxygen therapy at home - Patients with Long-Covid syndrome - Telerehabilitation of patients in the community
Teaching Methodology	<p>Theory</p> <p>The course is delivered to the students through lectures, using computer-based presentations programmes. Case Studies, Discussion, Questions / Answers are also used depending on the content of the lecture. Lecture notes and presentations are available online for use by students in combination with textbooks. Relevant material published in international scientific journals is also used to follow the latest developments related to the subject of the course.</p> <p>Laboratory</p> <p>During the laboratory courses, students develop their clinical skills in skill trainers and patient simulators so that they can successfully and safely apply them in a real clinical environment.</p>

Bibliography**Textbooks:**

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Bottomley J, Lewis C. (2008) Geriatric Rehabilitation: A Clinical Approach. 3rd ed. Upper Saddle River, NJ: Pearson Prentice Hall.

Riebe D. (2018). ACSM's Guidelines for Exercise Testing and Prescription. 10th ed. Philadelphia: Wolters-Kluwer.

Asimakopoulos D. (2016) Modern ENTL Geriatrics ROTUNDA Publications

Haniotis F., Haniotis D., (2012) Geriatrics. Publications: K. & N. Litsas O.E.

References:

Gillespie, LD, Robertson, MC, Gillespie, WH, Sherrington C, Gates S, Clemson LM, Lamb SE. (2012) Interventions for preventing falls in older people living in the community. Cochrane Database of Systematic Reviews Issue 9. Art. No.: CD007146. DOI: 10.1002/14651858.CD007146.pub3.

De Fina LF, Willis BL, Radford NB, et al. (2013) The association between midlife cardiorespiratory fitness levels and later life dementia. Ann Intern Med. 2013; 158:162–168.

Imamura M, Williams K, Wells M, Mcgrother C (2015). Lifestyle interventions for the treatment of urinary incontinence in adults. Cochrane Database Syst Rev. (12):CD003505. <https://doi.org/10.1002/14651858.CD003505.pub5>.

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Raue PJ, McGovern AR, Kiosses DN, Sirey JA. (2017) Advances in psychotherapy for depressed older adults. Curr Psychiatry Rep.19(9):57. <https://doi.org/10.1007/s11920-017-0812-8>.

	<p>Scheike TH, Holst KK, Hjelmborg JB. (2015) Measuring early or late dependence for bivariate lifetimes of twins. <i>Lifetime Data Anal.</i> 21(2):280–299.</p> <p>Sherrington, C. Michaleff, Z.A., Fairhall, N., Paul, S.S., Tiedemann, A., Whitney, J., Cumming, R.G., Herbert, R.D., Close, J.C.T., Lord, S.R. (2017) Exercise to Prevent Falls in Older Adults: An Updated Systematic Review and Meta-Analysis. <i>Br. J. Sports Med.</i> 51, 1749–1757.</p> <p>World Health Organisation (2007) WHO Global Report on Falls Prevention in Older Age. Geneva: World Health Organisation.</p> <p>http://www.csp.org.uk/professional-union/practice/evidence-base/physiotherapy-works/falls-and-frailty Physiotherapy works: Falls and frailty The Chartered Society of Physiotherapy. Physiotherapy reduces falls, addresses frailty and restores independence. AGILE Charter Society of Physiotherapy.</p>
<p>Assessment</p>	<p><u>Continuous Assessment (50%):</u></p> <p>The assessment may include any combination of the following:</p> <ul style="list-style-type: none"> • Written and/or oral, and it consists of multiple – choice, short answer, open ended questions and/or essay questions, that align with the learning outcomes, in order to assess the theoretical knowledge gained. The questions ensure that students will demonstrate a deep understanding of the subject matter and apply their knowledge to solve problems or analyse scenarios. • Assignments and projects provide opportunities for students to apply their theoretical knowledge in practical ways. The assignments are designed in a way that require critical thinking, research, analysis, and synthesis of information. Projects can be individual, self directed learning or group-based and should align with the learning outcomes. Students are evaluated on the quality of their work, the depth of understanding displayed, and their ability to effectively communicate their ideas. Assignments and projects may be individual or group work. • Use of case studies or problem-solving exercises to assess how students can apply theoretical knowledge to real-life situations. Students are presented with scenarios that require analysis, critical thinking, and the application of theoretical concepts and they are assessed based on their ability to perform verbal presentations, viva voce examinations, identify and evaluate relevant information, propose solutions, and provide justifications for their choices. • Online quizzes or interactive assessments: Online quizzes or interactive assessments, reflective writing can be used through the Moodle platform, to create quizzes with various question formats. These assessments can be self-paced or timed, and immediate feedback can be provided to students.

	<ul style="list-style-type: none"> • Classroom discussions and debates: Students engage in classroom discussions and debates to assess their theoretical knowledge. Active participation is encouraged to hone their critical thinking skills by posing open-ended questions and facilitating dialogue. • Peer and self-assessment: Students are assigned to review and provide feedback on each other's work, encouraging them to critically evaluate their peers' understanding and provide constructive suggestions. <p>Laboratory evaluation consists of assessment of the expected skills and competences, critical thinking, problem-solving and teamwork skills. During the laboratory sessions, students are closely observed as they engage in the assigned tasks and note is taken regarding the actions, approach and any relevant observations that demonstrate their understanding of the subject matter and application of skills. After assessing the laboratory work, constructive feedback is provided to students. Their strengths and areas for improvement are highlighted, linking them back to the learning outcomes to help students understand their progress and guide them towards further development. Depending on the nature of the laboratory work, peer assessment can be incorporated, where students evaluate each other's work based on the established criteria to promote self-reflection, collaboration, and a deeper understanding of the subject matter.</p> <p>Final Exam (50%): comprehensive final exam, to assess students' overall theoretical knowledge. These assessment covers a broader range of topics and learning outcomes from the entire program of study, to gauge the students' understanding and integration of knowledge across different areas.</p>
Language	Greek / English