

**DESCRIPTION OF COURSE UNIT FOR DOCTORAL STUDIES  
AT VILNIUS UNIVERSITY**

<b>Scientific Area/eas, Field/ds of Science</b>	Medical and Health Sciences (M 000): Medicine (M 001); Odontology (M 002); Public Health (M 004); Nursing (M 005)			
<b>Faculty, Institute, Department/Clinic</b>	Faculty of Medicine Institute of Clinical Medicine Clinic of Internal Diseases, Family Medicine and Oncology			
<b>Course unit title</b> (ECTS credits, hours)	<b>The Ageing Process and Geriatric Medicine</b> 8 credits (212 hours)			
<b>Study method</b>	<b>Lectures</b>	<b>Seminars</b>	<b>Consultations</b>	<b>Self-study</b>
Number of ECTS credits	-	-	1	7
<b>Method of the assessment</b> (in 10 point system)	The exam is performed writing and orally. Writing work is coded. The student answers 3 randomly selected theoretical questions from the questions bank. The exam is evaluated by a 10-point system. The student passes the exam if the overall average of all 3 answers is 5 (five) points or more.			

**PURPOSE OF THE COURSE UNIT**

To provide theoretical knowledge about the human aging process and its consequences for the body, about the most common diseases of the older adults, the main geriatric syndromes, the peculiarities of their diagnosis and treatment as well as about the main criteria for the quality of palliative treatment and nursing in long-term treatment departments, paying attention to the gerontotechnology in geriatric medicine. The purpose is to develop the ability critically evaluate various types of violence against the older adults.

**THE MAIN TOPICS OF COURSE UNIT**

General part: Biological and sociological theories of aging. An overview of the main demographic indicators. Age-related morphological and physiological changes in the body. Comprehensive geriatric assessment. Multidisciplinary team in geriatric medicine. Quality criteria for palliative treatment and care in long-term treatment departments. Features of pharmacokinetics and pharmacodynamics in old age. Principles of geropharmacology. Polypharmacy. Application of gerontotechnology in geriatric medicine.

Special part: Diseases of older adults. Cardiovascular diseases: ischemic heart disease, heart valve diseases, heart failure, hypertension. Diseases of the respiratory system: pneumonia, bronchial asthma, chronic bronchitis, chronic obstructive pulmonary disease, tuberculosis. Diseases of the digestive system: diseases of the esophagus, gastritis, ulcers, intestinal diseases, mesenteric ischemia. Diseases of the musculoskeletal system: rheumatoid arthritis, osteoarthritis, ankylotic spondylitis, gout, osteoporosis, rheumatic polymyalgia, temporal arteritis. Endocrine diseases: hypothyroidism, hyperthyroidism, diabetes mellitus. Kidney diseases: pyelonephritis, glomerulonephritis, kidney stones, angionephrosclerosis, acute and chronic renal failure. Postmenopausal disorders, impotence. Blood diseases: anemia, acute and chronic leukosis, myelodysplastic syndrome. Diseases of the central nervous system: stroke, Parkinson's disease. Mental disorders: dementia (Alzheimer's disease), delirium, affective disorders, depression, anxiety, panic syndrome.

Geriatric syndromes. Frailty: risk factors, diagnosis and treatment. Age-related sarcopenia: risk factors, diagnosis, treatment and prevention. Types of incontinenes. Diagnosis of incontinenes: anamnesis, physical examination, diagnostic tests, specialized tests. Treatment of incontinenes by type. Disorders of gait and balance of older adults. Prevalence of falls, external and internal risk factors

of falls. Assessment of falls: anamnesis, physical examination, environmental assessment, diagnostic algorithms. Modification of risk factors for falls, preventive measures in the patient's home and health care facilities. Constipation: prevalence, predisposing factors, pathophysiology. Diagnosis and treatment of constipation. Pressure ulcers: pathogenesis, risk factors and methods of assessment (scales), complications, treatment. Wounds and their care in old age. Age-related changes in sleep physiology. Types of sleep disorders, diagnostic criteria, nocturnal myoclonus. Sleep apnea. Treatment: non-pharmacological interventions and medications. Causes of acute and chronic pain, assessment. Non-pharmacological interventions and medications for pain treatment. Tinnitus: causes, differential diagnosis. Causes of dysphagia, monitoring. Nutrition assessment in older adults. Body composition assessment in older adults. Sensory deficits, diagnosis and correction. Dry skin and itching in old age. Elder abuse.

### **RECOMMENDED LITERATURE SOURCES**

1. Chun A. (Editor). Geriatric Practice. A Competency Based Approach to Caring for Older Adult. SBN 978-3-030-19624-0 ISBN 978-3-030-19625-7 (eBook), 2020  
<https://doi.org/10.1007/978-3-030-19625-7>
2. Blundell A., Gordon A. Geriatric medicine at glance. Wiley-Blackwell, 2015
3. Hutchison L.C., Sleeper R.B. Fundamentals of Geriatric Pharmacotherapy: An Evidence-Based Approach. American Society of Health-Systems Pharmacists; 2nd edition, 2015
4. Blaževičienė A., Krančiukaitė-Butylkinienė. Spirgienė L. Bendruomenės sveikata ir gerovė. Kaunas: UAB „Vitae Litera“. 2020
5. Lesauskaitė V., Damulevičienė G., Knašienė J., Kučikienė O., Macijauskienė J. Geriatrija. Kaunas: LSMU Leidybos namai. 2017
6. Roller-Wirnsberger R., Singler K., Polidori MC. Learning geriatric medicine: a study guide for medical students. Cham: Springer. 2018
7. Mastavičiūtė A., Kilaitė J. Senatvinės sarkopenijos diagnostika. Mokymo ir metodinė priemonė. Vilniaus universiteto leidykla. 2021
8. van Houten M.E., Vloet L.C.M., Pelgrim T., Reijnders U.J.L., Berben S.A.A. Types, characteristics and anatomic location of physical signs in elder abuse: a systematic review: Awareness and recognition of injury patterns. Eur Geriatr Med. 2021  
<https://doi.org/10.1007/s41999-021-00550-z>
9. Halter J, Ouslander J, Studenski S, High K, Asthana S, Supiano M. Hazzard's Geriatric Medicine and Gerontology. McGraw-Hill Education, 2017  
<http://accessmedicine.mhmedical.com/book.aspx?bookid=1923>
10. Kane R, Ouslander J, Abrass I, Resnick B. Essentials of Clinical Geriatrics. McGraw-Hill Professional, 2017  
<https://accessmedicine.mhmedical.com/Book.aspx?bookid=2300>
11. Bruera E., Higginson I., von Gunten Ch.F. Textbook of Palliative Medicine and Supportive Care. 2nd Edition Taylor & Francis, 2016
12. Compston JE, McClung MR, Leslie WD. Osteoporosis. Lancet. 2019  
[https://doi.org/10.1016/S0140-6736\(18\)32112-3](https://doi.org/10.1016/S0140-6736(18)32112-3)
13. Ellis G, Gardner M, Tsiachristas A, Langhorne P, Burke O, Harwood RH, Conroy SP, Kircher T, Somme D, Saltvedt I, Wald H, O'Neill D, Robinson D, Shepperd S. Comprehensive geriatric assessment for older adults admitted to hospital. Cochrane Database Syst Rev. 2017 <http://doi.org/10.1002/14651858.pub3>

### **CONSULTING LECTURERS**

1. Coordinating lecturer: Asta Mastavičiūtė (Assist. Prof. Dr.).
2. Virginijus Šapoka (Prof. Dr.).
3. Agnė Jakavonytė-Akstinienė (Assoc. Prof. Dr.).

### **APPROVED:**

By Council of Doctoral School of Medicine and Health Sciences at Vilnius University:  
29<sup>th</sup> of September 2022

Chairperson of the Board: Prof. Janina Tutkuvienė