DISCIPLINESHEET

1. Data about the programme

1.1.	**"CAROL DAVILA" UNIVERSITY OF MEDICINE AND PHARMACY**
1.2.	**FACULTY OF MEDICINE**
1.3.	**DEPARTMENT 5 – INTERNAL MEDICINE (Cardiology, Gastroenterology, Hepatology, Rheumatology, Geriatrics), Family Medicine, Occupational Medicine**
1.4.	**DISCIPLINE Geriatrics and Gerontology II**
1.5.	**DOMAIN OF STUDY: HEALTH – Sectorally regulated within the European Union**
1.6.	**STUDY CYCLE: LICENCE**
1.7.	**STUDY PROGRAME: MEDICINE – ENGLISH MODULE**

2. Data about discipline

2.1.	**Name of the discipline in the educational plan: Geriatrics and Gerontology**				
2.2.	**Discipline code:M 152_4**				
2.3.	**Discipline type (FD/SD/CD):DS**				
2.4.	**Discipline regimen (MD/OPD/):DOB**				
2.5.	**The holder of the course activities**				
2.6.	**The holder of the seminaractivities:**				
2.7. Year of study	**V**	**2.8. Semester**	**II**	**2.9. Type of evaluation (E/C)**	**E**

3. **Total estimated time (hours/semester of didactic activityanself preparation/study**

I. Academic training (teaching, practical application, assessment)						
3.1. Nr hours/week	**4**	**Fromwhich:**	**3.2. lectur e**	**2**	**3.3. seminary/ laboratory**	**2**
3.4. Total hours of educational plan	**32**	**Fromwhich:**	**3.5. lectur e**	**16**	**3.6. seminary/ laboratory**	**16**
Evaluation (nr. ofhours) : 7						
II. Self preparation/study						
Time allocation						**hours**
Study of course materials, textbooks, books, study of the recommended minimal bibliography						6
Additional research in the library, research through the internet						6
Performing specific activities for preparing projects, laboratories, elaborating reviews or other tasks						6
Specific preparation activities for projects, laboratory work, assignments, and reports						6
Tutoring						4
Otheractivities						-
3.7. Total individualstudyhours						28
3.9. Total hours per semester(3.4.+3.7.)			60			
3.10. Number of credits			5			

4. Preconditions (where applicable)

4.1. of curriculum	-
4.2. ofcompetences	-

5. Conditions (where applicable)

5.1. toconduct the lecture	PowerPoint presentations, use of multimediasystems, and projector
5.2. toconduct the seminar / laboratory	Equippedwith the necessaryapparatus for conductingpracticalactivities

6. Learning outcomes

Knowledge	Skills	Responsibility and autonomy
• Theories of aging: biochemical, molecular, cellular, genetic and psychosocial.	• Anamnesis of the geriatric patient, including from caregivers.	• Maintaining a professional attitude, respecting the dignity of the patient regardless of age, illness, ethnicity, religion or social status.
• Anatomical, histological and physiological changes associated with aging; pathology of normal aging.	• Standardized geriatric assessment of ADL, IADL, cognitive function, gait, balance, mood, nutrition, visual and auditory function.	• Recognising and combating stereotypes and discrimination against older people ("ageism").
• Atypical manifestations of diseases in the elderly.	• Interpretation of the evaluation results and formulation of diagnostic, therapeutic and management steps.	• Recognition of the heterogeneity of the elderly and individualized approach to the patient.
• Principles of evidence-based medicine and the application of guidelines to elderly patients with polymorbidity.	• Adequate communication with the elderly, including those with cognitive or sensory disorders.	• Taking responsibility for clinical decisions based on evidence and ethical principles.
• Pathophysiology, evaluation, diagnosis, management and prevention of the main geriatric syndromes (chronic pain, dementia, delirium, abuse, falls, sensory disorders, malnutrition, sarcopenia, bedsores, incontinence).	• Integrating patient preferences and values into medical decisions.	• Responsibility to ensure continuity of care and integration of health and social services.
• Peculiarities of pathophysiology, evaluation, diagnosis, management, prevention for: cardiovascular diseases (including heart failure, hypertension), cerebrovascular diseases, stroke, COPD and	• Identification and management of drug misuse and polypragmatism.	• Promoting interdisciplinary collaboration and effective communication within the care team.

pneumonia, depression, diabetes, water balance disorders, osteoporosis, renal failure.		
• Pharmacokinetics and pharmacodynamics of the elderly, safety of prescribing, compliance, polypragmatism.	• Use of prostheses, orthoses and means of facilitation to maintain functionality.	• Active involvement in patient, family and community education on aging and elderly care.
• International Classification of Functionality (ICF), the concept of frailty and multidimensional geriatric assessment.	• Multidisciplinary collaboration and teamwork (assistants, physiotherapists, occupational therapists, dieticians, psychologists, clinical pharmacists, speech therapists, social workers, spiritual support).	• Autonomous development of professional skills through continuous self-education and integration of clinical practice experiences.
• Ethical and legal concepts in geriatrics (autonomy, beneficence, non-malefficiency, justice; decisions in lack of capacity, advance directives, resuscitation, artificial nutrition, euthanasia).	• Application of ethical and legal principles in concrete clinical situations.	
• Organization of care services: primary, community, acute hospital, recovery, long-term care, palliative, terminal; services and their interaction with social assistance.	• Adaptation of clinical conduct to various care environments: hospital, outpatient, community, home care, institutionalization.	
• Demography, epidemiology and costs of elderly care; issues related to minorities and financial resources.		

7. Course objectives (aligned with the learning outcomes)

7.1. General objective	Acquiring theoretical and practical skills for diagnosis and management of older people's specific health problems
7.2. Specific objective	1. Graduates should respect patients regardless of their chronological age. 2. Graduates should know about and understand normal and abnormal structure and function, including the natural history of human diseases, the body's defense mechanisms, disease presentation and responses to illness. 3. Graduates should know about common medical conditions in older people. 4. Graduates should have the special skills needed to conduct a history and perform an assessment in an older patient.

	5. Graduates should know about and understand the principles of treatment including the effective and safe use of medicines as a basis for prescribing. 6. Graduates should recognize the importance of responses to illness, providing help towards recovery and reducing or managing impairments, disabilities and handicaps. 7. Graduates should know about and understand the main ethical and legal issues in international and national context they will come across. 8. Graduates should know about, understand and respect the roles and expertise of other health and social care professionals. 9. Graduates should know about care of older patients in different settings. 10. Graduates should know about specific aspects relevant for health and social care for older persons in their region/ country. 11.Graduates must perform and interpret standardized geriatric assessments and predictive, preventive, personalized methods in Molecular Age Diagnosis in the current context of Longevity Medicine.

8. Contents

8.1. Lecture	**Teaching methods**	**Observations**
Lecture 1 - Definitions. Concepts. Theories of aging. Medico-social impact of aging .Normal and pathological brain aging. Biological age vs chronological age.	PPT presentation - interactive lecture	2h
Lecture 2 - Specific manifestations of diseases in old age.Prevention in chronic diseases. Neurocognitive disorders: from prevention to disease.	PPT presentation - interactive lecture	2h
Lecture 3 - Common conditions encountered in older adult people:particularities of cardiovascular, respiratory, digestive, renal, rheumatological and hematological diseases.	PPT presentation - interactive lecture	2h
Lecture 4 - Therapeutic principles, including effective and safe use of medicines in old age. Iatrogenic conditions in older people. Pharmacology of the older adult patient	PPT presentation - interactive lecture	2h

Lecture 5 - Intrinsic capacity, frailty syndrome and resilience in older people.Multidomain intervention in frailty syndrome. Cognitive Frailty.	PPT presentation - interactive lecture	2h
Lecture 6 - Elderly care in various environments and contexts. Progressive management of older patient . The 4P of medicine.	PPT presentation - interactive lecture	2h
Lecture 7 - The multidisciplinary, multidimensional and integrative approach of older patient.Introduction to Longevity Medicine.Epigenetics in longevity.	PPT presentation - interactive lecture	2h
Lecture 8 - Therapies directed towards the phenomenon of aging. Romanian experience : Stress, mental health and longevity medicine.	PPT presentation - interactive lecture	2h
8.2. Laboratory/ practicallesson	**Teachingmethods**	**Observations**
1) Multidimensional evaluation of older people. Scales of assessment (cognitive, mood, instability, risk of fractures, incontinence, nutrition, risk of pressure sores, frailty, social and family support, etc.)	- case presentations; - illustration by direct evaluation of patients	2h
2) Specific syndromes encountered in older people: -incontinence -instability -immobility -cognitive impairment in older people; dementia (early, moderate, severe) and atypical dementia	- case presentations;	2h
3) Specific manifestations of diseases in older people	- case presentations;	2h
4) Hypothermia and hyperthermia in older people	- case presentations;	2h
5) Multidisciplinary team involved in the care of older patients	- case presentations;	2h

6) Counselling older patients and caregivers. Burden of care.	- case presentations;	2h
7) Polipharmacy in older people – prescribing and deprescribing	- case presentations;	2h
8) Factors affecting compliance in older people	- case presentations;	2h

Recentbibligraphy

1. **Spiru L., Romosan I.,''MedicinaLongevitatii-TRATAT DE GERIATRIE'', Ed. Ana Aslan International Academy of Aging Bucuresti, 2018**
2. **LuizaSpiru, Ioan Romosan - AETERNUS, Tratat de Geriatrie si MedicinaLongevitatii, EdituraAcademiei Romane, Bucuresti, 2020, ISBN 978-973-27-3203-8**
3. **The Merk Manual of Geriatrics, Ed. Merck &comp.,Whitehouse Station N.J.,2000, Editia an X-a**
4. **SpiruL, Romosan I, Caraba Al., Timar L.- Geriatrie, vol.I, Ed. Solness, Timişoara, 2002**
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7. **Bucureşti", 2004Luiza Spiru, Bruno Vellas, Pierre Jean Ousset - Caiet de observaţiepentrupacienţiicu Boala Alzheimer, Prima Ediţie, EdituraU.M.F. „Carol Davila", 2000**
8. **LuizaSpiru, Bruno Vellas, Pierre Jean Ousset- Caiet de observatiepentrupacientiicu Boala Alzheimer, Editia a II-a, ,EdituraU.M.F. „Carol Davila", 2000**
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10. **Luiza. Spiru, I. Romosan, A. Ciocalteu, Gerontonefrologie, Ed. Teora, 1998**
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14. **LuizaSpiru -Managementulbolilor de memorie – Ghidpractic, 2006, - ISBN 973 -8611-4-4-2006**

15. **LuizaSpiru - Scalespecifice de evaluare si diagnostic de specialitate, traduse si adaptate in limbaromana; Brain Aging International Journal – editie in limbaromana, ISSN 1582-8360: Testul MMSE (Mini Mental State Examination), Testul OROLOGIULUI, Scorulactivitãtilorvietiicotidiene (ADL), Scorul IADL al activitãtilorcurente, SIB (SevereImpairmentBatery), NPI (Neuropsychiatric Inventory), ZARIT : Evaluareasarciniiajutorului principal, Scorulrisculuivascular HATCHINSKI, Evaluareaechilibruluistatic si dinamic in timpulmersului: Proba Tinetti, Test de fluentaverbala, Clinical Global Impression (CGI).**
16. **Ghid de practicămedicalăpentruspecialitateaGeriatrieGerontologie si anexele sale, Evaluareageriatrica si Foaia de consultgeriatric, aprobateprinOrdinulministruluisanatatii Nr. 1454/30.11.2010**
17. **Curriculum si Syllabus de MedicinaGeriatrica-Gerontologica si PsihogeriatriepentruSpecialitateaMedicina de Familie, ConformDecizieComisiaNationala de GeriatrieGerontologie a MS, 2011**
18. **Ghid de buna practicăînIngrijirea la domiciliuşi Case Rezidențiale, ConformDecizieComisiaNationala de GeriatrieGerontologie a MS, 2011**
19. **Ioan Romosan, Iosif A. Szucsik, L. Spiru;-Gerontologie 1998, editia a 2-aI. Alexa, L. Spiru, V. Donca - Actualitati in geriatrie;, Ed Gr. T. Popa, U.M.F. Iasi, 2011**
20. **Kumar and Clark Clinical Medicine**, **10th Edition.** *Adam Feather, David Randall, Mona Waterhouse,* Leonard Azamfirei, Anca Dana Buzoianu, Dan Ionuţ Gheonea – coordinators of the Romanian edition, 10th edition, 1564 color pages, Hipocrate Publishing House, Bucharest, 2021 – **Chapter 15**. **Geriatric medicine, frailty and multimorbidity. ISBN: 979-859-115-765-4**
21. **Geriatrics and Gerontology – Conceptual aspects; Second edition.** Gabriel–Ioan Prada – "Carol Davila" University Publishing House, Bucharest, 2019. ISBN: 978-606-011-104-7

9. Evaluation

Activity type	9.1. Evaluation criteria	9.2. Evaluation methods	9.3. Percentage in the final grade
9.4. Lecture	Knowledge of the theoretical notions of the subject	written	50%
9.5. Seminary/ practical activity	Clinical examination of the elderly patient	practical exam	50%

9.5.1. Individual project (if applicable	-	-	-
9.6. Minimum performance standard 50%			

Date of completion : 16.09.2025 **Signature of the course holder** **Signature of the laboratory holder**

Date of approval by the Department Council: **Signature of the Department Director**