**T.C.**

**ATILIM UNIVERSITY FACULTY OF MEDICINE**

**EDUCATION IN 2023-2024 ACADEMIC YEAR**

**ACADEMIC CALENDAR**

**Laboratory Lessons:**

1. Medical Skills: Intramuscular & subcutaneous injection (1 hour) (Dr. Öktem/ Dr. Brohi)

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| **COMMITTEE NAME** | **STARTING DATE** | **COMPLETION DATE** |
| **MED 304** | 26.02.2024 | 04.04.2024 |

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| **COMMITTEE NAME** |
|  | **MED 301** | **MED 302** | **MED 303** | **MED 304** | **MED 305** | **MED 306** |
| **MEDICAL SKILLS EXAM DATE** |  |  |  | 04.04.2024 |  |  |
| **COMMITTEE EXAM DATE** |  |  |  | 05.04.2024 |  |  |

**MED304 ADULT HEALTH**

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| **PHASE III COORDINATOR** | Prof. Dr. Yekbun Adıguzel |
| **CHAIR OF THE MED 304 COMMITTEE** | Dr. Evren Tuncer |
| **MED 304 COMMITTEE DATE RANGE** | 26.02.2024 – 05.04.2024 |
| **ACADEMIC STAFF** **AT THE MED 304 COMMITTEE** | Prof. Dr. Necla TÜLEK- Medical MicrobiologyProf Dr.Nedret Kılıç- BiochemistryProf Dr.Gamze Yurdakan ÖZYARDIMCI- PathologyProf. Dr. Ahmet SALTIK- Public HealthProf. Dr. Selda Dilek TEKİNER-Family MedicineProf. Dr. Gürol CANTÜRK-Forensic MedicineAsst. Prof. Dr. Nagehan ACET - Physiotherapy and Rehabilitation Dr. Naime Ulug - Physiotherapy and Rehabilitation Dr. Yeliz Zahiroğlu - RheumatologyDr. Evren Tuncer- Medical PharmacologyDr. Melike Erol Demirbilek – Medical BiochemistryDr. Ilgar Seyidov – Public Relations and AdvertisingAsst. Prof. Dr. Badegül SARIKAYA-Physiology Asst. Prof. Dr. Canan DEMİR-Internal MedicineAsst. Prof. Dr. Ali Doğan DURSUN – PhysiologyAsst. Prof.Recep Ali BROHİ- AnatomyDr. Özlem Çetiner- Nutrition and DieteticsDr. Ezgi Akçaer -  |
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**ACADEMIC STAFF** | **THEORETICAL LECTURE TIME** | **PRACTICAL LECTURE TIME** | **INTERACTIVE EDUCATION****TIME** | **TOTAL TIME** |
| **Medical Microbiology** | 15 | - | 2( 2 hours for CBL) | 17 |
| **Internal Medicine** | 3 | - | - | 3 |
| **Medical Pharmacology** | 9 | - | - | 9 |
| **Biochemistry** | 4 | -- | - | 4 |
| **Medical Pathology** | 2 | - | - | 2 |
| **Public Health** | 20 | - | - | 20 |
| **Physiotherapy and Rehabilitation** | 5 | - | - | 5 |
| **Rheumatology** | 1 | - | - | 1 |
| **Physiology** | 1 | - | - | 1 |
| **Nutrition and Dietetics** | 1 | - | - | 1 |
| **Family Medicine** | 4 | - | - | 4 |
| **Forensic Medicine** | 4 | - | - | 4 |
| **Dr. Ezgi Akçaer** | 2 | - | - | 2 |
| **Dr. Brohi & Dr. Öktem** | - | 1( Medical skills) | - | 1 |
| **BEHAVIORAL& SOCIAL** **SCIENCES (Dr. Dursun(1), Dr. Ilgar(2))** | 3 | - | - | 3 |
| **TOTAL** | 74 | 1 | 2 | 77 |

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| **Advisor Visit** | - |

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| **CONTENT OF THE MED 304 COMMITTEE**  |
| Adult &Public Health, Definitions: Physiology of aging, Nutrition in adults, Drug use in elderly, Exercise in the adults, Climate migration, Migration: Definitions and Economic aspects of migration, Follow up in different stages of life and periodic health examination, Vector borne diseases, Physiology of memory, Malnutrition, Physiotherapy-Musculoskeletal health-Postural alignment, Single gene Mendelian disease: adulthood, Dietary supplements and herbal medication, "One Health" concept, Vulnerable social groups, Cognitive and functional changes in elderly , Alzheimer, demantia, Administration of Drugs- Intramuscular & Subcutaneous, Prevention & Control of Non-Communicable Diseases, Biochemical Changes in the Elderly, Obesity and metabolic syndromes, Pathology of Obesity, Obesity Problem in Adult, Preventive oncology-Cancer screening programs, War, Migration and public health, Rational prescribing, Legal responisibilities of physician, Management of Work Related and Occupational Diseases, Emerging and re-emerging diseases, Systematic approach to enviromental health, Radiation and health, Immunization and Prophylaxis for Health Care Workers, Medical waste management, Zoonotic Diseases -1: Brucellosis, Zoonotic Diseases -2: Anthrax, tigmatization, discrimination, Zoonotic Diseases -3: Lyme disease and Tularemia, Zoonotic Diseases -4: Leptospira, Q fever, Ehrlichia and anaplasmosis, Zoonotic Diseases -5: Leptospira, Q fever, Ehrlichia and anaplasmosis, Degenerative osteoarthritis and complications, Drugs for inflammation and joint disease, Forensic Medicine reports, Vaccination in elderly, Epidemyology and control of zoonotic disease, Vaccine storage/handling, Adolescent Health, Notification systems, Management of Outbreaks, Epidemics and Pandemics, Discussing serious news; Bereavement and grief in adults, Technology and health interaction, Vaccination in risk groups, Travel Associated Infections, Animal bite infections: Pasteurella multocida, bartonella, Traumatic Brain Injury, Severe Cruh Injury in Adults, Intramuscular & subcutaneous injection. |
| **MED 304 COMMITTEE AIM** |
| This Adult and Old Age Years committee aims to address health and basic disorders in these age groups and to enable students to acquire intramuscular and subcutaneous injection skills. |
| **MED 304 COMMITTEE LEARNING OBJECTIVES** |
| 1. List the most common zoonotic diseases.
2. Describe the groups most vulnerable to disease transmission.
3. Identify the causes of the most common zoonotic diseases.
4. Defines the One Health concept
5. Discuss the One Health concept and importance
6. Define the most common causes of brucellosis
7. Describe the common means of transmission and explain the pathogenesis
8. Describe the major manifestations. Since this disease is called undulant fever determine what the fever is like (high/low), the periodicity of the fever (daily, every other week), and how long the fever lasts.
9. Differentiate from other diseases have similar presentations
10. Define the diagnostic tests and interpretation of serological test.
11. Describe how you treat and prevent this infection.
12. Discuss key barriers to accessing health services and infectious diseases screening for recent migrants.
13. Identify infectious diseases for which recent migrants are at increased risk.
14. Discuss the strengths and limitations of one-stop infectious disease screening for migrants
15. Define the most common cause of tularemia (shape and gram stain?)
16. Describe the common means of transmission
17. Describe the major manifestations of tularemia.
18. Describe how you diagnose, treat and prevent tularemia.
19. Define the agents of pestis.
20. Describe the common means of transmission Describe the major manifestations of this infection.
21. Describe how you diagnose, treat and prevent this infection. Discuss the impact of disease in history.
22. Describe the major manifestations of Lyme disease
23. Describe microbiology, transmission, pathogenesis, clinical findings, diagnosis, and treatment of Lyme Diseases
24. Discuss the prevention and control of Lyme disease
25. Describe the principal risks to the health of international travelers.
26. Appreciate the geographic distribution of tropical infectious disease.
27. Understand the fundamentals of the pre-travel health consultation.
28. Provide basic pre-travel health advice regarding food and water precautions, insect bite avoidance, animal bite management, and personal safety to intending travelers.
29. Recognize the leading causes of illness in the returned traveler
30. Discuss the effect of climate change on disease vectors and distribution
31. Analyze morbidity and mortality of the most prevalent vector-borne diseases, their temporal and spatial distribution and what populations are affected.
32. Give an example of a disease that has emerged due to human activities, and state what those human activities were (e.g., AIDS, Ebola virus, bird flu, Lyme disease, Zika etc.).
33. Explain how public health policies (e.g., quarantine and vaccination) can alter epidemic/pandemic progression.
34. Recognize the infectious risks for health care workers
35. Explain the screening programs
36. Explain the importance of vaccination for the purpose of inducing immunity. in the control of infectious diseases.
37. List the vaccines recommended to health care workers.
38. Understanding the reasons, and value of each vaccine.
39. Describes the post exposure prophylaxis
40. Defines the medical wastes, home waste, chemical waste.
41. Describe the items used for medical waste.
42. Describe the collection and disposal of medical waste.
43. Explain cold chain management.
44. Describe the components of routine and emergency procedures for vaccine storage and handling.
45. Describe proper vaccine storage and temperature monitoring equipment.
46. Describe correct vaccine and diluent storage, handling, and disposal of routinely recommended vaccine.
47. Identify actions that should be taken if vaccines have not been stored properly.
48. Describe: Which disease, disorders, which way, Use the system.
49. Describe notification of communicable diseases.
50. Use the system evaluate the effectiveness of the reporting system and its related feedback mechanisms on a regular basis and make improvements
51. Describe cognitive decline due to aging and differentiate dementia
52. Explain important epidemiological features, basic pathophysiology mechanisms, main signs, findings and laboratory features of dementia and Alzheimer's disease and make differential diagnosis
53. Developing an awareness on social groups within the population
54. Recognizing major vulnerable / fragile social groups within the community
55. During supplying health care, acting in sensitization for such groups and individuals
56. Understanding specialized health care needs of socially vulnerable groups and individuals
57. Serving on equity & equality basis accounting handicaps of communal fragile groups
58. Understanding occupational labor health conditions
59. Understanding occupational labor safety conditions
60. Recognizing occupational safety and health risk factors
61. Constructing a responsibility for prevention of the labor from Occupational risks
62. Understanding the relationship between war condition and individual – societal health
63. Understanding the relationship between being migrant and individual – societal health
64. Recognizing major health problems arising from war media and carrying a migrant status
65. Developing responsibility for prevention of health & serving medical care for these handicapped groups
66. Recognizing addiction status within individuals and making diagnosis
67. Evaluating the burden of addictive behavior both on individual and family
68. Developing responsibility and skills for managing these problems at personal and communal level
69. Giving counselling to the related persons and families
70. Cooperating with the local and national institutions that established for managing this problem
71. Giving definition of chronic disease and disease burden
72. Conceptualization of major indicators for disease burden: DALY and QUALY
73. Realizing the multi-dimensional load of chronic diseases both individual and communal scale
74. Feeling responsibility for serving preventive care targeting mitigation of disease burden arising from chronic diseases
75. Developing Professional capability for making early diagnosis of chronic disease
76. Taking part in prognostic surveillance within secondary and tertiary care units
77. Giving definition of zoonotic disease and describing disease of burden
78. Introducing basic epidemiological tools for fighting against zoonotic disease
79. Having essential knowledge on epidemiological distribution of important zoonosis within practicing region
80. Realizing the mutual relationships between zoonosis and human diseases
81. Evaluating essential environmental sanitation measures for the prevention from zoonotic diseases
82. Taking part within veterinary public health units in the responsibility area for fighting against zoonosis
83. Who is health care worker legally?
84. Reviewing Turkish Act #6331 within the framework of lecture topic
85. Gaining essential legal normative information related to Health & rights of health care workers
86. Becoming a defender and advocate for promising the rights of health care workers
87. Examining basic ILO Conventions in connection with the rights of health care workers
88. What is disability legally and medically and related terminology (impairment, handicapped.) ?
89. Understanding loss of labor due to disability on legal and medical basis
90. Reviewing national regulations and ILO Conventions on the issue
91. Becoming a defender and advocate for labor rights with Professional responsibility
92. Constructing professional medical responsibilities in order to control disability induced loss of labor
93. Gaining required terminology and concepts within this field
94. Understanding the pathogenetic mechanisms among environmental conditions and the ill health
95. Reviewing basic environmental threats both national and worldwide scale
96. Developing skills of systematic approach for tackling environmental health problematic area
97. Gaining required terminology and concepts in order to conceive radiation induced health hazards
98. Recognizing potential sources of hazardous effects of radiation in medical applications
99. Developing a proper judging for utilization of radiological tools for diagnostic & therapeutic purposes
100. Reasoning stochastic and non-stochastic hazardous effects of ionizing radiation particularly on DNA
101. Gaining required terminology and concepts within this field
102. Understanding the serious disease burden of Outbreaks, Epidemics and Pandemics
103. Reviewing the essential epidemiological tools for fighting against Outbreaks, Epidemics and Pandemics
104. Developing suitable approaches for controlling Outbreaks, Epidemics and Pandemics both national and international level
105. Describes musculoskeletal system injuries and degenerative conditions and know their complications.
106. - Describes the general treatment principles of musculoskeletal injuries and degenerative conditions.
107. - Describes the functions of all the elements of the spine
108. Describes posture analysis, determines postural disorders seen in all populations.
109. Describes different types of postures and how to identify them.
110. Understanding how computer Technologies were evolved
111. Understanding the current Technologies and their implementations in healthcare
112. Understanding the future of the technology and health interaction
113. Risky and life-threatening conditions in the neonatal period.
114. Risky and life-threatening situations in childhood.
115. Risky situations in adolescence.
116. Screenings that should be done during pregnancy.
117. 5- Screenings and routine health examinations for male and female gender from the age of 40 and until the end of life
118. At the end of this course, student describes climate change, climate migration, displacement, environmental mobility, forced migration, vulnerability, internal migration, international migration, refoulement, regular/irregular migration. Solves problems by fundamental principles of international migration law. Discusses contemporary problems of international migration law. Designs international migration law order benefits from fundamental principles of international migration law and comparative law.
119. Defines aging. Explains age-related changes in the physiological systems.
120. Define single gene Mendelian diseases in adulthood
121. Explains the developmental mechanisms of single-gene Mendelian inherited diseases in adulthood with their genetic basis.
122. Describes the effects of single-gene Mendelian inherited diseases in adulthood on different systems (cardiovascular system and musculoskeletal system).
123. Define the microbiological features of Bacillus anthracis bacteria.
124. Explain the diseases caused by Bacillus anthracis and make differential diagnosis.
125. Define the microbiological features of Pasteurella multocida, bartonella type bacteria.
126. Explain the diseases caused by Pasteurella multocida, bartonella type bacteria and make differential diagnosis.
127. Define the indications, immunization programs and vaccines for immunization of adults and elderly in risk group.
128. Plan and advise on immunizations of adults and elderly at risk.
129. To understand pharmacologic changes associated with aging
130. Define major drug groups mostly used in geriatric patients
131. Define the adverse drug reactions in the elderly
132. Discussing the practical aspects of geriatric pharmacology
133. Understand the concept of Rational Drug Use
134. Explain the elements of Prescription
135. Discuss the prescription errors and poor prescription writing
136. Find drug information from the updated and reliable internet sources
137. Find the summary of product characteristics (spc) of medicines in international websites and “*kısa ürün bilgisi*” in Turkish websites
138. Write a rational prescription
139. Defining basic ethical principles in medical research
140. Avoiding breaching of ethical and legal norms in medical research
141. Introducing international ethical regulations on medical research
142. Internalization of ethical – legal basic principles for biomedical research
143. Describing the mutual relationships between health and culture
144. Understanding the contribution of Anthropology on medical sciences
145. Bridging Cultural issues and the medical anthropology discipline
146. Realizing the ways in order to solve some cultural health problems by means of medical anthropology
147. Defining and classifying accidents as of major categories
148. Conceiving the relative share of accidents in general, among integrity of health problems
149. Becoming an active partner for constructing a safer daily and Professional life in terms of accidents
150. Describing required precautions as an advocator both for general society and individuals
151. Developing safety skills for a systematic approach for preventing from accidents as a whole
152. The aim of this course is present the legal aspects of climate migration and migration definitions also economic aspects of migration. In this sense it is aimed to present related multilateral international conventions on migration.
153. To explain the physio-pathological features of single-gene Mendelian disorders that occur in adulthood and to pay attention to common genetically transmitted diseases in terms of public health.
154. To be able to describe the microbiological features of Bacillus anthracis bacteria
155. To be able to explain the diseases caused by C bacillus anthracis and make differential diagnosis.
156. To be able to describe the microbiological features of Pasteurella multocida, bartonella type bacteria
157. To be able to explain and differential diagnosis of diseases caused by Pasteurella multocida, bartonella type bacteria.
158. To be able to define indications, immunization programs and vaccines for immunization of adults and elderly in risk group.
159. To be able to plan and advise the immunization of adults and the elderly in the risk group
160. To Understand Special Aspects of Geriatric Pharmacology
161. To Explain Rational Prescribing & Prescription Writing
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| **RECOMMENDED BOOKS**1. Cognitive Changes with Aging, Review, M.S. Baghel et al. Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci. DOI 10.1007/s40011-017-0906-4
2. Understanding Alzheimer's Disease and Other Dementias, Dr. Nori Graham, Dr. James Warner. Published by Family Doctor Publications Limited in association with the British Medical Association <https://readingagency.org.uk/adults/FDP%20Alzheimers%20Disease%20ist%202x%20chapter.pdf>
3. Vulnerable Populations in the Context of Public Health Emergency Preparedness Planning and Response <https://oxfordmedicine.com/view/10.1093/med/9780190270742.001.0001/med-9780190270742-chapter-4>
4. Creating a Culture of Prevention in Occupational Safety and Health Practice <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4909854/>
5. Family and social aspects of substance use disorders and treatment <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4158844/>
6. Epidemiology of Zoonotic Diseases in the United States: A Comprehensive Review [https://www.researchgate.net/publication/313270944\_Epidemiology\_of](https://www.researchgate.net/publication/313270944_Epidemiology_of_) Zoonotic\_Diseases\_in\_the\_United\_States\_A\_Comprehensive\_Review
7. Patient Responsibilities, Health Care Workers Rights (for a Change)
8. RISKS TO HEALTH CARE WORKERS IN DEVELOPING COUNTRIES Turkish Act #6331 : Occupational Health & Safety Act (Official Gazette : 30.06.2012 No : 28339
9. Health Effects of Radiation / CDC.Health effects of radiation and other health problems in the aftermath of nuclear accidents, with an emphasis on Fukushima / The LANCET
10. ILO Encylopedia, 2015. The Nature and Effects of Noise <https://www.iloencyclopaedia.org/part-vi-16255/noise>
11. Managing epidemics, Key facts about major deadly diseases, by WHO <https://www.who.int/publications/i/item/managing-epidemics-key-facts-about-major-deadly-diseases>
12. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 9th Edition, Bennett, JE, Dolin R, Blaser MJ. Elsevier, 2019
13. O'Regan, G., & O'Regan. (2008). A brief history of computing (pp. I-XIX). London: Springer.
14. Driscoll, K. (2012). From Punched Cards to" Big Data": A Social History of Database Populism. communication+ 1, 1(1), 1-33.
15. Andreu-Perez, J., Poon, C. C., Merrifield, R. D., Wong, S. T., & Yang, G. Z. (2015). Big data for health. IEEE journal of biomedical and health informatics, 19(4), 1193-1208.
16. Thomason, J. (2021). MetaHealth-How will the Metaverse Change Health Care?. Journal of Metaverse, 1(1), 13-16.
17. Panch, T., Szolovits, P., & Atun, R. (2018). Artificial intelligence, machine learning and health systems. Journal of global health, 8(2).
18. Udhan, S., & Patil, B. (2021). A systematic review of Machine learning techniques for Heart disease prediction. International Journal of Next-Generation Computing, 12(2).
19. Verma, N., Singh, S., & Prasad, D. (2021). A Review on existing IoT Architecture and Communication Protocols used in Healthcare Monitoring System. Journal of The Institution of Engineers (India): Series B, 1-13.
20. Screening programmes: a short guide. Increase effectiveness, maximize benefits and minimize harm. Copenhagen: WHO Regional Office for Europe; 2020. Licence: CC BY-NC-SA 3.0 IGO
21. Screening. Textbook of Family Medicine Eighth ed Rakel RE, Rakel DP eds.Elsevier Saunders Philadelphia p:74.
22. Robbins Basic Pathology Tenth Ed., 2018 by Elsevier Inc Vinay Kumar, MBBS, MD, FRCPath., Abul K. Abbas, MBBS, Jon C. Aster, MD, PhD Understanding Pathophysiology First canadian Ed. 2018 by Elsevier Inc. Sue Huether; Kelly PowerKean; Mohamed ElHussein
23. Pathophysiology of Diseases: An introduction in clinical medicine 8 ed. 2019 by McGraw-Hill Education; Lange Inc. Gary D. Hammer, MD, PhD Stephen J. McPhee, MD
24. Pathophysiology: The biologic basis for diseases in adults and children 8th ed. 2019 by Elsevier Inc. Kathryn L. McCance, MS, PhD Sue E. Huether, MS, PhD Valentına L. Brashers, Neal S. Rote, PhD
25. Rapid Review Pathology, Fifth Edition 2019 by Elsevier, Inc. Edward F. Goljan, MD
26. Katzung, B.G., Vanderah T, W., Basic &Clinical Pharmacology,15th Ed., 2021, McGrawHill Lange, New York
27. Katzung, B.G., Vanderah T,W., Basic &Clinical Pharmacology,14th Ed., 2018, McGrawHill Lange, New York
28. Whalen K., Lippincottt Illustrated Reviews Pharmacology, 7th Ed., 2019, Wolters Kluwer, Philadelphia
29. Culture and Health Applying Medical Anthropology, by Michael Winkelman, 2009
30. Masic, I., Hodzic, A., & Mulic, S. (2014). *Ethics in medical research and publication*. International journal of preventive medicine, 5(9), 1073–1082.
31. Aron DC, Headrick LA. *Educating physicians prepared to improve care and safety is no accident: it requires a systematic approach.* Qual Saf Health Care. 2002 Jun;11(2):168-73. doi: 10.1136/qhc.11.2.168. PMID: 12448811; PMCID: PMC1743611.
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| **MED 304 COMMITTEE EXAM WEEK** |
| **DATE** | **EXAM NAME** | **EXAM HOUR** |
| 04.04.2024 | Medical Skills | 09:30-14:20 |
| 05.04.2024 | MED 304 Committee Exam | 09:30-12:20 |
| **Teaching Methods and Techniques** |

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| [x]  Lecture |  [x]  Case based learning | [ ]  Case discussion | [ ]  Student presentation |
| [ ]  Role playing |  [x]  Problem based learning | [ ]  Project | [ ]  Homework |
| [x]  Laboratory practice |  [ ]  Team based learning | [x]  Self Learning | [ ]  Student Panel |

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| **Evaluation Method** | Theoretical Exam (80%), PBL (10 %), Clinical Skill (10%) |
| **Lesson Language** | English |