T.C.

ATILIM UNIVERSITY FACULTY OF MEDICINE

EDUCATION IN 2024-2025 ACADEMIC YEAR

ACADEMIC CALENDAR

Laboratory Lessons:

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

COMMITTEE NAME	STARTING DATE	COMPLETION DATE
MED 301	18.09.2024	01.11.2024
MED 303	04.11.2024	13.12.2024
MED 305	16.12.2024	10.01.2025
MED 302	27.01.2025	28.02.2025
MED 304	**03.03.2025**	**11.04.2025**
MED 306	14.04.2025	23.05.2025

COMMITTEE NAME						
	MED 301	**MED 302**	**MED 303**	**MED 304**	**MED 305**	**MED 306**
MEDICAL SKILLS EXAM DATE				10.04.2025		
COMMITTEE EXAM DATE				11.04.2025		

MED304 ADULT HEALTH

PHASE III COORDINATOR	Prof. Dr. Yekbun Adıguzel			
CHAIR OF THE MED 304 COMMITTEE	Asst. Prof. Dr. Merve Topcu Bulut			
MED 304 COMMITTEE DATE RANGE	03.03.2025 – 11.04.2025			
ACADEMIC STAFF AT THE MED 304 COMMITTEE	Prof. Dr. Necla Tülek - Medical Microbiology Prof. Dr. Nedret Kılıç - Biochemistry Prof. Dr. Gamze Yurdakan Özyardimci – Pathology Prof. Dr. Ahmet Saltık - Public Health Prof. Dr. Selda Dilek Tekiner - Family Medicine Prof. Dr. Gürol Cantürk - Forensic Medicine Assoc. Prof. Dr. Hale Öktem - Anatomy Assoc. Prof. Dr. Ali Doğan Dursun – Physiology Assoc. Prof. Dr. Erkam Sencar – Internal Medicine Assoc. Prof. Dr. Çiğdem Erol – Medical Microbiology Asst. Prof. Dr. Melike Erol Demirbilek – Medical Biochemistry Asst. Prof. Dr. Sami Eren - Medical Pharmacology Asst. Prof. Dr. Recep Ali Brohi- Anatomy Asst. Prof. Dr. Badegül Sarıkaya - Physiology Asst. Prof. Dr. Merve Topcu Bulut – Clinical Psychology Dr. Canan Çiçek Demir - Internal Medicine Asst. Prof. Dr. Nagihan Acet- Physiotherapy And Rehabilitation Asst. Prof. Dr. Zehra Can Karahan- Physiotherapy And Rehabilitation Asst. Prof. Dr. İrem Çağla Özel – Nutrition And Dietetics			
ACADEMIC STAFF	**THEORETICAL LECTURE TIME**	**PRACTICAL LECTURE TIME**	**INTERACTIVE EDUCATION TIME**	**TOTAL TIME**
Medical Microbiology	15	-	2 CBL (Dr. Tülek)	17
Internal Medicine	1	-	-	1
Medical Pharmacology	6	-	-	6
Biochemistry	4	--	-	4
Medical Pathology	12	-	-	12
Public Health	15	-	-	15
Physiotherapy and Rehabilitation	4	-	-	4
Physiology	1	-	-	1
Nutrition and Dietetics	1	-	-	1
Family Medicine	4	-	-	4
Forensic Medicine	2	-	-	2
Medical Skills	-	1 (4 sections)	-	1
Behavioral & Social Sciences	10	-	-	10

TOTAL	75	1	2	78

Advisor Visit	2
Communication Skills	12 (Practical)

CONTENT OF THE MED 304 COMMITTEE
• Adult & Public Health; • Definitions: Physiology Of Aging; • Nutrition In Adults; • Burden Of Chronic Diseases; • Obesity And Metabolic Syndromes; • Dietary Supplements And Herbal Medication; • Chronic Disease And Management And Patient Adherence; • Disability And Loss Of Labor; • War, Migration And Public Health; • Noise And Health; • Physiotherapy - Musculoskeletal Health - Postural Alignment; • Nutritional Status Disorders: Obesity And Malnutrition; • Disorders And Neoplasms Of Keratinocytes; • Disorders Of Pigmentation And Melanocytes; • One Health – One Medicine; • Burnout And Occupational Health; • Prevention & Control Of Non-Communicable Diseases; • Vulnerable Social Groups; • Immunization And Prophylaxis For Health Care Workers; • Zoonotic Diseases -1: Brucellosis; • Zoonotic Diseases -2: Anthrax; • 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; • Inflammatory Disorders And Cartilage Tumors; • Acquired Disorders And Bone Metabolic Diseases; • Exercise In The Adults; • Drug Usage In Elderly; • Drugs Used In Inflammatory Diseases; • Legal Responsibilities Of Physician; • Somatization And Psychologically Rooted Physical Complaints; • Accidents; • Bone Tumors And Tumor-Like Lesions; • Soft Tissue Tumors; • Migration; • Neoplastic Proliferation Of The WBC; • Myeloid/Histiocytic Tumors; • Forensic Medicine Reports; • Vector Borne Diseases, • Somatization And Psychologically Rooted Physical Complaints; • Drug Administration Routes; • Basic Principles Of Prescription; • Vaccination In Risk Groups; • Malnutrition; • Obesity Problem In Adults;

- Travel Associated Infections;
- Epidemiology And Control Of Zoonotic Diseases;
- Biochemical Changes In The Elderly;
- Radiation And Health;
- Management Of Work Related And Occupational Diseases;
- Animal Bite Infections: Pasteurella multocida, Bartonella;
- Follow Up In Different Stages Of Life And Periodic Health Examination;
- Home Care;
- Intramuscular & Subcutaneous Injection;
- Emerging And Re-Emerging Diseases;
- Single Gene Mendelian Disease: Adulthood;
- Communication Skills.

MED 304 COMMITTEE AIM

This "Adult and Old Age Years" committee aims to address health issues and common disorders in these age groups while enabling students to acquire intramuscular and subcutaneous injection skills.

MED 304 COMMITTEE LEARNING OBJECTIVES

- List the most common zoonotic diseases.
- Describe the groups most vulnerable to disease transmission.
- Identify the causes of the most common zoonotic diseases.
- Define the One Health concept.
- Discuss the One Health concept and its importance.
- Define the most common causes of brucellosis.
- Describe the common means of transmission and explain the pathogenesis.
- Describe the major manifestations. Since this disease is called undulant fever, determine the fever characteristics (high/low), its periodicity (daily, every other week), and duration.
- Differentiate it from other diseases with similar presentations.
- Define the diagnostic tests and interpret serological test results.
- Describe how to treat and prevent this infection.
- Discuss key barriers to accessing health services and infectious disease screening for recent migrants.
- Identify infectious diseases for which recent migrants are at increased risk.
- Discuss the strengths and limitations of one-stop infectious disease screening for migrants.
- Define the most common cause of tularemia (shape and Gram stain).
- Describe the common means of transmission.
- Describe the major manifestations of tularemia.
- Explain how to diagnose, treat, and prevent tularemia.
- Define the causative agents of plague.
- Describe the common means of transmission and the major manifestations of this infection.
- Explain how to diagnose, treat, and prevent this infection. Discuss the historical impact of the disease.
- Describe the major manifestations of Lyme disease.
- Explain the microbiology, transmission, pathogenesis, clinical findings, diagnosis, and treatment of Lyme disease.
- Discuss the prevention and control of Lyme disease.
- Describe the principal health risks for international travelers.
- Recognize the geographic distribution of tropical infectious diseases.
- Understand the fundamentals of pre-travel health consultations.
- Provide basic pre-travel health advice regarding food and water precautions, insect bite avoidance, animal bite management, and personal safety.
- Recognize the leading causes of illness in returned travelers.
- Discuss the effects of climate change on disease vectors and their distribution.

- Analyze the morbidity and mortality of the most prevalent vector-borne diseases, their temporal and spatial distribution, and the populations affected.
- Give an example of a disease that has emerged due to human activities (e.g., AIDS, Ebola virus, bird flu, Lyme disease, Zika), and state the human activities responsible.
- Explain how public health policies (e.g., quarantine and vaccination) can alter epidemic/pandemic progression.
- Recognize the infectious risks for health care workers.
- Explain screening programs.
- List the vaccines recommended for health care workers.
- Understand the reasons and value of each vaccine.
- Describe post-exposure prophylaxis.
- Develop awareness of social groups within the population.
- Recognize major vulnerable/fragile social groups within the community.
- Act sensitively when providing health care for such groups and individuals.
- Understand the specialized health care needs of socially vulnerable groups and individuals.
- Provide health services based on equity and equality, considering the disadvantages of fragile communities.
- Understand occupational health conditions.
- Understand occupational safety conditions.
- Recognize occupational safety and health risk factors.
- Develop a sense of responsibility for preventing occupational risks.
- Understand the relationship between war conditions and individual/societal health.
- Understand the relationship between migration and individual/societal health.
- Recognize major health problems arising from war and migration.
- Develop responsibility for preventing health issues and providing medical care for these disadvantaged groups.
- Define chronic diseases and their disease burden.
- Understand key indicators of disease burden: DALY and QUALY.
- Recognize the multi-dimensional impact of chronic diseases on both individuals and communities.
- Take responsibility for providing preventive care to reduce the disease burden of chronic diseases.
- Develop professional skills for early diagnosis of chronic diseases.
- Participate in prognostic surveillance in secondary and tertiary care units.
- Define zoonotic diseases and describe their disease burden.
- Introduce basic epidemiological tools for combating zoonotic diseases.
- Gain essential knowledge of the epidemiological distribution of important zoonoses in the practicing region.
- Understand the interrelationship between zoonotic and human diseases.
- Evaluating essential environmental sanitation measures for the prevention of zoonotic diseases
- Participate in veterinary public health units within the responsibility area to combat zoonotic diseases.
- Define a health care worker legally.
- Review Turkish Act #6331 within the framework of the lecture topic.
- Gain essential legal and normative information related to health and the rights of health care workers.
- Advocate for and defend the rights of health care workers.
- Examine basic ILO Conventions related to the rights of health care workers.
- Define disability legally and medically, and explain related terminology (impairment, handicap).
- Understand labor loss due to disability from both legal and medical perspectives.
- Review national regulations and ILO Conventions on this issue.
- Advocate for labor rights with professional responsibility.
- Develop professional medical responsibilities to control disability-induced labor loss.
- Acquire required terminology and concepts in this field.
- Understand the patho-genetic mechanisms linking environmental conditions and ill health.
- Review basic environmental threats on both national and global scales.

- Develop systematic approaches to addressing environmental health problems.
- Acquire required terminology and concepts to understand radiation-induced health hazards.
- Recognize potential sources of hazardous radiation effects in medical applications.
- Develop proper judgment for utilizing radiological tools for diagnostic and therapeutic purposes.
- Analyze stochastic and non-stochastic hazardous effects of ionizing radiation, particularly on DNA.
- Acquire required terminology and concepts in this field.
- Describe musculoskeletal system injuries and degenerative conditions and identify their complications.
- Explain the general treatment principles of musculoskeletal injuries and degenerative conditions.
- Describe the functions of all elements of the spine.
- Conduct posture analysis and identify postural disorders common across all populations.
- Differentiate between different types of postures and explain how to identify them.
- Understand the evolution of computer technologies.
- Analyze current technologies and their applications in healthcare.
- Evaluate the future interaction between technology and health.
- Describe screenings and routine health examinations for males and females from age 40 until the end of life.
- Describe climate change, climate migration, displacement, environmental mobility, forced migration, vulnerability, internal migration, international migration, refoulement, and regular/irregular migration.
- Solve problems using fundamental principles of international migration law.
- Discuss contemporary issues in international migration law.
- Design international migration law frameworks, benefiting from fundamental principles of international migration law and comparative law.
- Define aging and explain age-related changes in physiological systems.
- Define single-gene Mendelian diseases in adulthood.
- Explain the developmental mechanisms of single-gene Mendelian inherited diseases in adulthood and their genetic basis.
- Describe the effects of single-gene Mendelian inherited diseases in adulthood on different systems (cardiovascular and musculoskeletal systems).
- Define the microbiological features of Bacillus anthracis.
- Explain the diseases caused by Bacillus anthracis and perform a differential diagnosis.
- Define the microbiological features of Pasteurella multocida and Bartonella species.
- Explain the diseases caused by Pasteurella multocida and Bartonella species and perform a differential diagnosis.
- Define the indications, immunization programs, and vaccines for adults and elderly individuals in risk groups.
- Plan and provide recommendations on immunizations for adults and elderly individuals at risk.
- Understand pharmacological changes associated with aging.
- Define the major drug groups commonly used in geriatric patients.
- Identify adverse drug reactions in the elderly.
- Discuss the practical aspects of geriatric pharmacology.
- Understand the concept of Rational Drug Use.
- Explain the elements of a prescription.
- Discuss prescription errors and poor prescription writing.
- Find drug information from updated and reliable internet sources.
- Retrieve the summary of product characteristics (SPC) of medicines from international websites and the “Kısa Ürün Bilgisi” from Turkish websites.
- Write a rational prescription.
- Describe the mutual relationships between health and culture.
- Understand the contribution of anthropology to medical sciences.
- Define and classify accidents based on major categories.
- Analyze the relative share of accidents within the broader context of health problems.

- Actively contribute to creating a safer daily and professional life in terms of accident prevention.
- Describe the necessary precautions as an advocate for both society and individuals.
- Develop safety skills and a systematic approach to accident prevention.
- Present the legal and economic aspects of climate migration and migration definitions. In this context, it aims to introduce related multilateral international conventions on migration.
- Explain the physio-pathological features of single-gene Mendelian disorders that occur in adulthood and highlight common genetically transmitted diseases from a public health perspective.
- Explain the development of malnutrition and obesity as nutritional disorders, along with their mechanisms.
- Describe non-tumoral and tumoral diseases related to keratinocytes and melanocytes in the epidermis.
- Define acquired and metabolic bone diseases and evaluate their clinical findings and mechanisms.
- Describe tumors and tumor-like lesions of bone along with their differential diagnoses.
- Explain the classification of soft tissue tumors and identify the most common soft tissue tumors.
- Describe the definitions, genetic basis, mechanisms, and currently used diagnostic methods for lymphoid and myeloid tumors.
- Explain rational prescribing and prescription writing.
- Understand the basics of chronic disease management and its importance in improving patient outcomes.
- Identify common barriers to patient adherence to treatment plans, including psychological, social, and systemic factors.
- Recognize the importance of individualized care plans that consider psychosocial and cultural factors affecting adherence.
- Analyze case studies to identify successful and unsuccessful approaches to chronic disease management.
- Recognize the role of healthcare providers in supporting long-term behavior change and self-management in chronic disease patients.
- Define vulnerability in the context of healthcare.
- Identify key factors contributing to vulnerability.
- Understand the role of healthcare providers in addressing health inequities.
- Recognize the complex interplay of social, economic, and environmental factors in adolescent health.
- Develop a holistic approach to assessing and addressing the needs of vulnerable children and their families.
- Understand the importance of interdisciplinary collaboration in managing cases involving vulnerable populations.
- Define somatization and distinguish it from other psychosomatic and medical conditions.
- Describe the biopsychosocial factors contributing to somatization.
- Explain how trauma, stress, and emotional dysregulation contribute to somatic complaints.
- Recognize common presentations of somatization in clinical practice.
- Understand the importance of identifying medically unexplained symptoms and their psychosocial context.
- Utilize effective communication strategies to validate the patient's experience and build rapport.
- Recognize the importance of interdisciplinary care in managing patients with somatic complaints.
- Reflect on the ethical implications of managing somatic complaints, particularly in avoiding stigma and ensuring comprehensive care.
- Understand the importance of maintaining professional boundaries while addressing the psychosocial needs of patients.
- Define burnout and its key components.
- Analyze the risk factors for burnout among healthcare professionals.
- Evaluate individual, environmental, and organizational contributors to burnout.
- Discuss the individual, professional, and organizational consequences of burnout.
- Explain the impact of burnout on healthcare quality and patient safety.

- Identify personal burnout risk factors and create individual prevention strategies.
- Recommend solutions at individual, institutional, and policy levels to combat burnout effectively.

RECOMMENDED REFERENCES

1. Baghel, M. S., et al. (2017). Cognitive changes with aging: Review. *Proceedings of the National Academy of Sciences, India, Section B: Biological Sciences*. https://doi.org/10.1007/s40011-017-0906-4
2. Creating a culture of prevention in occupational safety and health practice. (2016). *NCBI PubMed Central*. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4909854/
3. Zoonotic diseases in the United States: A comprehensive review. (2016). *ResearchGate*. https://www.researchgate.net/publication/313270944_Epidemiology_of_Zoonotic_Diseases_in_the_United_States_A_Comprehensive_Review
4. Health care workers' rights and patient responsibilities. (n.d.).
5. Risks to health care workers in developing countries: Turkish Act #6331: Occupational health & safety act. (2012). Official Gazette, 30.06.2012 No: 28339.
6. Centers for Disease Control and Prevention. (n.d.). *Health effects of radiation and other health problems in the aftermath of nuclear accidents, with an emphasis on Fukushima*. CDC.
7. Health effects of radiation. (2011). *The Lancet*.
8. International Labour Organization. (2015). The nature and effects of noise. *ILO Encyclopedia*. https://www.iloencyclopaedia.org/part-vi-16255/noise
9. Managing epidemics: Key facts about major deadly diseases. (2018). *World Health Organization*. https://www.who.int/publications/i/item/managing-epidemics-key-facts-about-major-deadly-diseases
10. Bennett, J. E., Dolin, R., & Blaser, M. J. (2019). *Mandell, Douglas, and Bennett's principles and practice of infectious diseases* (9th ed.). Elsevier.
11. O'Regan, G., & O'Regan, A. (2008). A brief history of computing (pp. I-XIX). Springer.
12. Driscoll, K. (2012). From punched cards to "Big Data": A social history of database populism. *Communication+, 1*(1), 1-33.
13. 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.
14. Thomason, J. (2021). MetaHealth—How will the Metaverse change health care? *The Journal of Metaverse, 1*(1), 13-16.
15. Panch, T., Szolovits, P., & Atun, R. (2018). Artificial intelligence, machine learning, and health systems. *Journal of Global Health, 8*(2).
16. Udhan, S., & Patil, B. (2021). A systematic review of machine learning techniques for heart disease prediction. *International Journal of Next-Generation Computing, 12*(2).
17. Verma, N., Singh, S., & Prasad, D. (2021). A review on existing IoT architecture and communication protocols used in healthcare monitoring systems. *Journal of the Institution of Engineers (India): Series B*, 1-13.
18. Screening programs: A short guide. (2020). *World Health Organization*. https://www.who.int/publications/i/item/managing-epidemics-key-facts-about-major-deadly-diseases
19. Rakel, R. E., & Rakel, D. P. (Eds.). (2018). *Textbook of family medicine* (8th ed.). Elsevier Saunders.
20. Kumar, V., Abbas, A. K., & Aster, J. C. (2018). *Robbins basic pathology* (10th ed.). Elsevier.
21. Hammer, G. D., & McPhee, S. J. (2019). *Pathophysiology of diseases: An introduction in clinical medicine* (8th ed.). McGraw-Hill Education.
22. McCance, K. L., Huether, S. E., Brashers, V. L., & Rote, N. S. (2019). *Pathophysiology: The biologic basis for disease in adults and children* (8th ed.). Elsevier.
23. Goljan, E. F. (2019). *Rapid review pathology* (5th ed.). Elsevier.
24. Katzung, B. G., & Vanderah, T. W. (2021). *Basic and clinical pharmacology* (15th ed.). McGraw-Hill Education.
25. Katzung, B. G., & Vanderah, T. W. (2018). *Basic and clinical pharmacology* (14th ed.). McGraw-Hill Education.
26. Whalen, K. (2019). *Lippincott illustrated reviews pharmacology* (7th ed.). Wolters Kluwer.

27. Winkelman, M. (2009). *Culture and health: Applying medical anthropology*.
28. Masic, I., Hodzic, A., & Mulic, S. (2014). Ethics in medical research and publication. *International Journal of Preventive Medicine, 5*(9), 1073–1082.
29. Aron, D. C., & Headrick, L. A. (2002). Educating physicians prepared to improve care and safety is no accident: It requires a systematic approach. *Quality and Safety in Health Care, 11*(2), 168-173. https://doi.org/10.1136/qhc.11.2.168
30. Sabaté, E. (Ed.). (2003). *Adherence to long-term therapies: Evidence for action*. World Health Organization.
31. Marjadi, B., Flavel, J., Baker, K., Glenister, K., Morns, M., Triantafyllou, M., Strauss, P., Wolff, B., Procter, A. M., Mengesha, Z., Walsberger, S., Qiao, X., & Gardiner, P. A. (2023). Twelve tips for inclusive practice in healthcare settings. *International Journal of Environmental Research and Public Health, 20*(5), 4657. https://doi.org/10.3390/ijerph20054657
32. Levenson, J. L. (2011). *The American Psychiatric Publishing Textbook of Psychosomatic Medicine: Psychiatric Care of the Medically Ill*. American Psychiatric Publishing.
33. Whalen, K. (2019). *Lippincott illustrated reviews pharmacology* (7th ed.). Wolters Kluwer: Philadelphia

MED 304 COMMITTEE EXAM WEEK		
DATE	**EXAM NAME**	**EXAM HOUR**
10.04.2025	Medical Skills	09:30-14:20
11.04.2025	MED 304 Committee Exam	09:30-12:20

Teaching Methods and Techniques	☒ Lecture	☒ Case based learning	☐ Case discussion	☐ Student presentation
	☐ Role playing	☒ Problem based learning	☐ Project	☐ Homework
	☒ Laboratory practice	☒ Team based learning	☒ Self-Learning	☐ Student Panel
Evaluation Method	Theoretical Exam (87%), PBL (5%), TBL (2%), Medical Microbiology Quiz (1%), Clinical Skills (5%)			
Lesson Language	English			