**T.C.**

**ATILIM UNIVERSITY MEDICINE FACULTY**

**EDUCATION IN 2023-2024 ACADEMIC YEAR**

**SPRING SEMESTER ACADEMIC CALENDAR**

**Laboratory Lessons:**

1. CLINICAL SKILLS: Glove use

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| **COMMITTEE NAME** | **STARTING DATE** | **COMPLETION DATE** |
| **MED 106** | 17.04.2024 | 17.05.2024 |

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| **COMMITTEE EXAM DATE** | 16th and 17.05.2023 |

 **MED 106 PUBLIC HEALTH**

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| **PHASE I COORDINATOR** | Asst. Prof. Dr. Badegül SARIKAYA |
| **Chair of the MED 106 COMMITTEE** | Prof. Dr. Ahmet SALTIK |
| **MED 106 COMMITTEE DATE RANGE** | 17.04.2023 - 16.05.2023 |
| **ACADEMIC STAFF with The MED 106 COMMITTEE** | Prof. Dr. Ahmet SALTIK, Public HealthProf. Dr. Necla TÜLEK, Medical MicrobiologyProf. Dr. Nesrin ÇOBANOĞLU, Medical Deontology, History & EthicsAsst. Prof. Dr. Fatma YERLİKAYA ÖZKURT, BiostatisticsAsoc. Prof. Dr. Ali Doğan DURSUN, PhysiologyLecturer Evren TUNCER, MD, PhD, Medical PharmacologyLecturer, Ezgi Akçacı, MD, Emergency Medicine |
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**ACADEMIC STAFF** | **THEORETICAL LESSON TIME**(hours) | **PRACTICAL LESSON TIME**(hours) | **INTERACTIVE EDUCATION TIME**(hours) | **TOTAL TIME**(hours) |
| **Public health** | 23+1 (Q&A) | - | - | 24 |
| **Medical Pharmacology** | 2 | - | 3 (TBL) | 5 |
| **Medical Microbiology** | 10+1 (Q&A) | 3 | 3 (3 hours for role play) | 17 |
| **Physiology** | 2 | - | - | 2 |
| **Biostatistics** | 6 | 2 | - | 8 |
| **Medical History** | 3 | - | - | 3 |
| **Emergency Medicine** | 2 | - | - | 2 |
| **TOTAL** | 51 | 5 | 6 | 62 |
| **MED 106 COMMITTEE, Main purposes, getting the students…** |
| **Gained** essential knowledge and basic concepts of health, social medicine & public health, determinants of health, health level indicators, healthcare management, social justicepublic health disasters such as epidemics, vaccines and types, immunization programs on particular groups, sterilization, drug development, hypothesis testing and the inference. **were able** to classify antibiotics, mechanism of action and anti-microbial resistance.**to describe** the vaccine indications, immunization programs, characteristics of the vaccines. **to Plan** and advise immunization for certain groups. Be able to describe the vaccine indications, immunization programs, the characteristics of the vaccines used and the ways of use in pregnant. **internalized : *Public Health approach*** *to the health problems of both individuals & societies.* |
| **MED 106 COMMITTEE LEARNING OBJECTIVESAt the end of This Committee, Students are expected to:** |
| 1. Explain the concepts of health and disease.
2. Define the concepts of social medicine and public health.
3. Describe the development of public health discipline in developed and developing countries.
4. Realise relationships between globalization & public’s health.
5. Define the determinants of health.
6. Describe the behavior and believes related to health.
7. Explain the effects of socioeconomic inequalities on health.
8. Explain human rights and its associations with health.
9. Explain the influence of health in social events and in risky groups.
10. Define the importance of discrimination in public gender and compares its effect in terms of health.
11. Summarize health-related social policies.
12. Explain and compare national and international health policies.
13. Explain and illustrate national and international health problems.
14. Lists national and international health organizations, and explain their responsibilities.
15. Explain the principles of healthcara management.
16. Lists the social and economic indicators of health.
17. Describe main health level indicators.
18. Explain how to measure health level of the community.
19. Describe the legal dimension of community health.
20. Describe the psyco-social and biological environment.
21. Describe major environmental health issues and public health disasters,
22. Understand management of outbreaks and epidemics.
23. Explain the negative impact of environmental pollution-degradation on health.
24. Explain the effects of urbanization and industrialization on health.
25. Explain the major principles of protecting and promoting health.
26. Explain the importance of the food & water safety
27. Describe the importance of physical activity
28. Describe the mechanism of antibacterial action of beta-lactam antibiotics.
29. Describe 3 mechanisms underlying the resistance of bacteria to beta-lactam antibiotics.
30. Identify the prototype drugs in each subclass of penicillin, and describe their antibacterial activity and clinical uses.
31. Identify the 4 subclasses of cephalosporins, and describe their antibacterial activities

and clinical uses.1. List the major adverse effects of the penicillin and the cephalosporins.
2. Identify the important features of aztreonam, imipenem, and meropenem.
3. Describe the clinical uses and toxicities of vancomycin.
4. Explain how these agents inhibit bacterial protein synthesis.
5. Identify the primary mechanisms of resistance to each of these drug classes.
6. Name the most important agents in each drug class, and list 3 clinical uses of each.
7. Recall distinctive pharmacokinetic features of the major drugs.
8. List the characteristic toxic effects of the major drugs in each class.
9. Describe 3 actions of aminoglycosides on protein synthesis and 2 mechanisms of resistance to this class of drugs.
10. List the major clinical applications of aminoglycosides and identify their 2 main toxicities.
11. Describe aminoglycoside pharmacokinetic characteristics with reference to their renal clearance and potential toxicity.
12. Understand time-dependent and concentration-dependent killing actions of antibiotics and what is meant by post-antibiotic effect.
13. Describe how sulfonamides and trimethoprim affect bacterial folic acid synthesis and how resistance to the antifolate drugs occurs.
14. Identify major clinical uses of sulfonamides and trimethoprim, singly and in combination, and describe their characteristic pharmacokinetic properties and toxic effects.
15. Describe how fluoroquinolones inhibit nucleic acid synthesis and identify mechanisms involved in bacterial resistance to these agents.
16. List the major clinical uses of fluoroquinolones and describe their characteristic pharmacokinetic properties and toxic effects.
17. List 5 special problems associated with chemotherapy of mycobacterial infections.
18. Identify the characteristic pharmacodynamic and pharmacokinetic properties of INH & rifampin.
19. List the typical adverse effects of ethambutol, pyrazinamide, and streptomycin.
20. Describe the standard protocols for drug management of latent tuberculosis, pulmonary tuberculosis, and multidrug-resistant tuberculosis.
21. Identify the drugs used in Leprosy and in the prophylaxis and treatment of *M. avium intracellulare* complex disease.
22. Define the antigen, immunogen, vaccination and immunisation
23. Explain the importance of vaccination in the control of infectious diseases,
24. Defines the components of vaccines, explain the function of vaccine components.
25. Describe the basic principles of vaccination, and effect mechanisms.
26. Discuss the principle strategies available for developing a vaccine and explain the significance of critical antigens, immunogens and adjuvants in developing effective vaccines
27. List the main types of vaccine and illustrate them with examples,
28. Explain the modes of action of live attenuated vaccines, inactivated vaccines, conjugate vaccines, subunit vaccines, and toxoid vaccines.
29. Describe the basic principles of vaccine production and compare the technologies.
30. Discuss the prospects for developing a vaccine against a named infectious disease, given information on its biology and epidemiology, and on the immune response in human hosts.
31. Outline the fears and concerns of different groups associated with, or likely to be affected by a mass immunization program.
32. Design simple, clear and tailor-made messages to communicate information about vaccine safety.
33. Explain the role of microorganisms in food & water safety.
34. Compare various physical and chemical methods used in the control of microorganisms in food & water.
35. Explain the factors that affect microbial growth in food & water.
36. List foodborne & waterborne diseases. Learn the methods for microbial examination for food & water.
37. Understand the principles that make a food product / water safe for consumption
38. Define sterilization, disinfection, asepsis, antisepsis.
39. Describe the general effects chemical and physical agents have on membranes, proteins, and nucleic acids which are lethal to cells.
40. Compare various physical and chemical methods used in the control of microorganisms.
41. Understand various disinfection and sterilization techniques, evaluate the sterility testing, microbial assays, pharmacopoeial standards of sterilization process.
42. Explain the factors affecting to choose the methods in hospitals.
43. Distinguish the adverse effects of (ionizing) radiation and protection methods
44. In biostatistics part of this course, the students will be learning fundamental concepts of the hypothesis testing and the inferential statistics so that they can solve practical problems of medicine which requires statistical techniques.
45. Define anti-microbial classification, mechanism of action and mechanism of resistance.
46. Define vaccination indications, vaccination schedules and vaccination in childhood, adolescents, adults, elderly and pregnant.
47. Define the cause of vaccine hesitations.
48. Describe the historical development of medicine in Turkiye.
49. Evaluate current studies with an academic view from past to present, events that shape the development of the medical profession in the history of medicine, the place of Turkish medicine in the history of medicine, our professional past
50. Explain the development of medicine with an evolutionary approach in the light of revolutionary changes that shape the development of the medical profession in the history of medicine, physicians who left traces, and fundamental events that created transformation.
51. Define human normal flora and microbiota, the benefits of human normal flora and microbiota on human health.
52. Define what clean / safe water and food are
53. Know how to obtain clean water / food
54. Know the infectious diseases transmitted by water/food and the ways of protection from these diseases.
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| **RECOMMENDED REFERENCES** *(Selected)*1. Katzung, B.G., Vanderah T, W., Basic & Clinical Pharmacology,15th Ed., 2021, McGrawHill Lange, New York
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5. Dr. Mehmet Can Akyolcu, 2015, Biophysics, İstanbul Üniversitesi Cerrahpaşa Tıp Fak. (Yay. no 295, Rektörlük yayın no 5215, ISBN 978-605-07-0588-1).
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26. Global Population Health: A Primer. Richard Skolnik. Jones & Bartlett Learning, 2023.
27. Progress towards universal health coverage and inequalities in infant mortality: An analysis of 4·1 million births from 60 low-income and middle-income countries between 2000 and 2019. The Lancet, Vol. 12. Number 5 | May 2024, p e712-e890
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| **MED 106 COMMITTEE EXAM WEEK** |
| **DATE** | **EXAM NAME** | **EXAM HOUR** |
| 16th & 17th May 2024 | MED 106 Committee Exam & Discussion of QsMewdical skills exam | 13:30-16:2013:30-16:20 |
| **Teaching Methods and Techniques** |

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

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| **Evaluation Method** | Theoretical Exam (70%) + Practice (30%) |
| **Teaching Language** | English |