**T.C.**

**ATILIM UNIVERSITY MEDICINE FACULTY**

**EDUCATION IN 2021-2022 ACADEMIC YEAR**

**SPRING SEMESTER ACADEMIC CALENDAR**

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| **COMMITTEE NAME** | **STARTING DATE** | **COMPLETION DATE** |
| **MED 102** | 07.02.2022 | 18.03.2022 |
| **MED 104** | 21.03.2022 | 29.04.2022 |
| **MED 106** | 02.05.2022 | 27.05.2022 |

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| **COMMITTEE NAME** |
|  | **MED 101** | **MED 102** | **MED 103** | **MED 104** | **MED 105** | **MED 106** |
| **ANATOMY PRACTICAL EXAM DATE** | - | - | - | - | - | - |
| **HISTOLOGY AND EMBRYOLOGY PRACTICAL EXAM DATE** | - | - | - | - | - | - |
| **MEDICAL BIOLOGY PRACTICAL EXAM DATE** | - | - | - | - | - | - |
| **COMMITTEE EXAM DATE** | - | - | - | - | - | 30.05.2022 |

**MED106 PUBLIC HEALTH**

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| **PHASE I COORDINATOR** | Prof. Dr. Veli Cengiz ÖZALP |
| **PHASE I COORDINATOR ASSISTANT** | Asst. Prof. Dr. Nuriye Ezgi BEKTUR AYKANAT |
| **CHAIRMAN OF THE MED 106 COMMITTEE** | Prof. Dr. Ahmet SALTIK |
| **MED 106 COMMITTEE DATE RANGE** | 02.05.2022- 30.05.2022 |
| **ACADEMIC STAFF AT THE MED 106 COMMITTEE** | Prof. Dr. Ahmet SALTIK- Public HealthProf. Dr. Uğur GÖNÜLLÜ- Pulmonary DiseasesProf. Dr. Necla TÜLEK- Medical MicrobiologyProf. Dr. Nesrin ÇOBANOĞLU- Medical Deontology and EthicsProf. Dr. Yekbun ADIGÜZEL – Medical BiologyProf. Dr. Sevtap HAMDEMİR KILIÇ- Gynecology & Obstetrics Prof. Dr. Cem Hasan RAZİ-PediatricsProf. Dr. Ali ACAR- Medical MicrobiologyAsst. Prof. Dr. Fatma YERLİKAYA ÖZKURT - BiostatisticsAsst. Prof. Dr. Esin BODUROĞLU- Medical PathologyAsst. Prof. Dr. Ali Doğan DURSUN- PhysiologyAsst. Prof. Dr. Gökşen ÖZ- Medical Pharmacology |
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**ACADEMIC STAFF** | **THEORETICAL LESSON TIME** | **PRACTICAL LESSON TIME** | **INTERACTIVE EDUCATION****TIME** | **TOTAL TIME** |
| **Public health** | 27 | - | - | 27 |
| **Medical Pharmacology** | 5 | - | - | 5 |
| **Medical Microbiology** | 16 | - | 5 (3 hours for small groups application, 2 hours for role play) | 21 |
| **Physiology** | 2 | - | - | 2 |
| **Medical Pathology** | 1 | - | - | 1 |
| **Biostatistics** | 6 | 2 | - | 8 |
| **Pulmonary Diseases** | 1 | - | - | 1 |
| **Gynecology & Obstetrics** | 1 | - | - | 1 |
| **Pediatrics** | 1 | - | - | 1 |
| **Medical Biology** | 2 | - | - | 2 |
| **Medical Deontology and Ethics** | 3 | - | - | 3 |
| **TOTAL** | 65 | 2 | 5 | 72 |

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| **Office Hour** | - |

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| **CONTENT OF THE MED 106 COMMITTEE**  |
| Introduction to Public Health Committee, Public Health Challenges in the 21st Century, Community Mental Health, Human Normal Flora and Microbiota, Epidemiologic Research Methods in Medicine, Prevention & Control of Non-Communicable Diseases, Health Level Indicators, General Principles of Vaccination, Vaccine Types, Medical Law, Health and Physical activity, Public Health in Developed Countries, Globalization and Public Health, Drug Development and Safety, Food and Water Safety, Antibiotics, Socioeconomic Differences and Public Health, Water Microbiology, Modern Science in Medicine and Features of the 20th Century Medicine, History of Turkish Medicine Before the Turkish Republic, History of Turkish Medicine After the Turkish Republic, Public Health Disasters, Public Health & Infectious Diseases, Health Sociology, Pregnant Health, Human Rights and Health, International Health, Inferential statistics, Social Determinants of Public Health, Social Justice & Public Health, Tourist Health, Public Health Ethics, Tobacco use, Introduction to Hypothesis Testing, Univariate Hypothesis Testing, Medical Waste Management on Microbiological Aspect, Food Microbiology, Childhood vaccination, Adolescent vaccination, Bivariate Hypothesis Testing, Inferential statistics, Adult Vaccination, Radiation Biology, Injury by physical agents, Vaccine Technologies, Vaccination in Pregnancy, Sterilization, disinfection, antisepsis, Practice: Hypothesis Testing, Multivariate Hypothesis Testing, Small-groups Application-based Learning: Sterilization and Disinfection (MEDICANA Hospital visit), Role Play: Vaccine Hesitancy |
| **MED 106 COMMITTEE AIM** |
| To gain knowledge about the concepts of health, social medicine and public health, determinants of health, indicators of health level, health management and economics, occupational safety and health, major environmental health problems, management of public health disaster and epidemics, vaccines, immunization programs, sterilization, disinfection, antisepsis, drug development, tobacco use, hypothesis testing. To be able to define antimicrobial classification, mechanism of action and resistance mechanism. To be able to explain antimicrobial classification, mechanism of action and resistance mechanism. To be able to define Medical Waste Management from Microbiological Perspective. To be able to explain Medical Waste Management from Microbiological Perspective. To be able to describe the vaccine indications, immunization programs, the characteristics of the vaccines used and the ways of use in adolescents. To be able to plan and advise immunization in the adolescents. To be able to describe the vaccine indications, immunization programs, the characteristics of the vaccines used and the ways of use in adults. To be able to plan and advise immunization in the adults. To be able to describe the vaccine indications, immunization programs, the characteristics of the vaccines used and the ways of use in pregnant. To be able to plan and advise immunization in the pregnant. |
| **MED 106 COMMITTEE LEARNING OBJECTIVES** |
| 1. Describe the mechanism of antibacterial action of beta-lactam antibiotics.
2. Describe 3 mechanisms underlying the resistance of bacteria to beta-lactam antibiotics.
3. Identify the prototype drugs in each subclass of penicillin, and describe their antibacterial activity and clinical uses.
4. Identify the 4 subclasses of cephalosporins, and describe their antibacterial activities
5. and clinical uses.
6. List the major adverse effects of the penicillin and the cephalosporins.
7. Identify the important features of aztreonam, imipenem, and meropenem.
8. Describe the clinical uses and toxicities of vancomycin.
9. Explain how these agents inhibit bacterial protein synthesis.
10. Identify the primary mechanisms of resistance to each of these drug classes.
11. Name the most important agents in each drug class, and list 3 clinical uses of each.
12. Recall distinctive pharmacokinetic features of the major drugs.
13. List the characteristic toxic effects of the major drugs in each class.
14. Describe 3 actions of aminoglycosides on protein synthesis and 2 mechanisms of resistance to this class of drugs.
15. List the major clinical applications of aminoglycosides and identify their 2 main toxicities.
16. Describe aminoglycoside pharmacokinetic characteristics with reference to their renal
17. clearance and potential toxicity.
18. Understand time-dependent and concentration-dependent killing actions of antibiotics and what is meant by postantibiotic effect.
19. Describe how sulfonamides and trimethoprim affect bacterial folic acid synthesis and how resistance to the antifolate drugs occurs.
20. Identify major clinical uses of sulfonamides and trimethoprim, singly and in combination, and describe their characteristic pharmacokinetic properties and toxic effects.
21. Describe how fluoroquinolones inhibit nucleic acid synthesis and identify mechanisms involved in bacterial resistance to these agents.
22. List the major clinical uses of fluoroquinolones and describe their characteristic pharmacokinetic properties and toxic effects.
23. List 5 special problems associated with chemotherapy of mycobacterial infections.
24. Identify the characteristic pharmacodynamic and pharmacokinetic properties of
25. isoniazid and rifampin.
26. List the typical adverse effects of ethambutol, pyrazinamide, and streptomycin.
27. Describe the standard protocols for drug management of latent tuberculosis, pulmonary tuberculosis, and multidrug-resistant tuberculosis.
28. Identify the drugs used in leprosy and in the prophylaxis and treatment of Mavium-intracellulare complex disease.
29. Define the antigen, immunogen.
30. Explain the importance of vaccination.in the control of infectious diseases,
31. Defines the components of vaccines, explain the function of vaccine components.
32. Describe the basic principles of vaccination, effect mechanisms.
33. Discuss the principle strategies available for developing a vaccine and explain the significance of critical antigens, immunogens and adjuvants in developing effective vaccines
34. List the main types of vaccine and illustrate them with examples,
35. Explain the modes of action of live attenuated vaccines, inactivated vaccines, conjugate vaccines, subunit vaccines, and toxoid vaccines.
36. Describe the basic principles of vaccine production and compare the technologies.
37. 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.
38. Outline the fears and concerns of different groups associated with, or likely to be affected by, an immunization program
39. Design simple, clear and tailor-made messages to communicate information about vaccine safety.
40. Explain the effective methods
41. Explain the role of microorganisms in food safety.
42. Compare various physical and chemical methods used in the control of microorganisms in food.
43. Explain the factors that affect microbial growth in food.
44. List foodborne diseases. Learn the methods for microbial examination for food.
45. Understand the principles that make a food product safe for consumption
46. Define sterilization, disinfection, asepsis, antisepsis.
47. Describe the general effects chemical and physical agents have on membranes, proteins, and nucleic acids which are lethal to cells.
48. Compare various physical and chemical methods used in the control of microorganisms.
49. Understand various disinfection and sterilization techniques, evaluate the sterility testing, microbial assays, pharmacopoeial standards of sterilization process.
50. Explain the factors affecting to choose the methods in hospitals.
51. Distinguishes the adverse effects of (ionizing) radiation and protection methods
52. 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.
53. Defines antimicrobial classification, mechanism of action and mechanism of resistance.
54. Explains antimicrobial classification, mechanism of action and resistance mechanism.
55. Defines Medical Waste Management from Microbiological Perspective.
56. Explains Medical Waste Management from Microbiological Perspective
57. Defines vaccination indications, vaccination schedules and vaccination in adolescents
58. Plans and advises on vaccination in adolescents
59. Defines vaccination indications, vaccination schedules and vaccination in adults
60. Plans and advises on vaccination in adults
61. Defines vaccination indications, vaccination schedules and vaccination in pregnant
62. Plans and advises on vaccination in pregnant
63. Define the cause of vaccine hesitations
64. Plan and advise on immunizations of adults and elderly at risk
65. Describes the historical development of medicine and ethical rules
66. Defines the method knowledge of medicine and medicine
67. Evaluates 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
68. Explains 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
69. Defines human normal flora and microbiota
70. Defines the benefits of human normal flora and microbiota on human health.
71. Defines what clean water is
72. Knows how to obtain clean water
73. Knows the infectious diseases transmitted by water and the ways of protection from these diseases.
74. Explains the concepts of health and disease.
75. Defines the concepts of social and public health.
76. Describes the development of public health discipline in developed and developing communities.
77. Relates globalization with health.
78. Defines the determinants of health.
79. Describes the behavior and belief related to health.
80. Explains the effects of socioeconomic inequalities on health.
81. Explains human rights and its association with health.
82. Explains the influence of health in social events and in risky groups.
83. Defines the importance of discrimination in public gender and compares its effect in terms of health.
84. Summarizes health-related social policies.
85. Explains and compares national and international health policies.
86. Explains and illustrates national and international health problems.
87. Lists national and international health organizations, and explain their responsibilities.
88. Explains health management.
89. Explains health economics. Lists the social and economic indicators of health.
90. Describes health level indicators.
91. Explains how to measure health level of the community.
92. Describes the legal dimension of community health.
93. Explains the concepts of occupational health and safety in national and international dimensions.
94. Defines the rights of health workers.

Explains the management of medical waste. 1. Describes healthy environment.
2. Describes the psyco-social and biological environment.
3. Describes major environmental health issues and public health disasters, management of epidemics.
4. Explains the effects of environmental degradation on health.
5. Explains the effects of urbanization and industrialization on health.
6. Explains safe diet and balanced nutrition.
7. Explains the principles of protection of health.
8. Explains the importance of the food and water safety
9. Describes the importance of physical activity
10. Describes the harmful effect of substance use
 |
| **RECOMMENDED REFERENCES**1. Katzung, B.G., Vanderah T, W., Basic &Clinical Pharmacology,15th Ed., 2021, McGrawHill Lange, New York
2. Katzung, B.G., Kruidering-Hall,, M., Trevor, A.J., Katzung & Trevor’s Pharmacology Examination & Board Review, 12th Ed, 2019, New York
3. Whalen K., Lippincottt Illustrated Reviews Pharmacology, 7th Ed., 2019, Wolters Kluwer, Philadelphia
4. Brunton L.L., Goodman & Gilmans’s The Pharmacological Basis of Therapeutics, 13th Ed, 2018, McGrawHill, NewYork
5. Dr. Mehmet Can Akyolcu, 2015, Biophysics, İstanbul Üniversitesi Cerrahpaşa Tıp Fakültesi (Yayın no 295, Rektörlük yayın no 5215, ISBN 978-605-07-0588-1).
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10. Basic & Clinical Pharmacology (14th Edition); Bertram G. Katzung,‎ Anthony J. Trevor; McGraw-Hill, 2018.
11. Oxford Textbook of Public Health (6th Edition); Roger Detels, Robert Beaglehole, Mary Ann Lansang, Martin Gulliford; Oxford Medical Publications, 2015.
12. Textbook of Family Practice, 9th Edition Robert E. Rakel, David P. Rakel, 2015
13. Robbins Basic Pathology (10th Edition); Vinay Kumar, Abul K. Abbas, Jon C. Aster; Elsevier Saunders, Philadelphia, 2018.
14. Park’s Textbook of Preventive and Social Medicine (23rd Edition); K. Park; Bhanot, 2015.
15. Evaluating Public and Community Health Programs (2nd Edition); Muriel J. Harris; John Wiley & Sons, New York, 2016.
16. Comparative Health Systems: A Global Perspective (2nd Edition); James A. Johnson, Carleen Stoskopf, Leiyu Shi; Jones and Bartlett Publishers, Burlington, 2018.
17. Epidemiology (5th Edition); Leon Gordis; Elsevier Saunders, Philadelphia, 2014.
18. Medical Physiology 3rd Edition by Boron MD PhD, Walter F, Boulpaep MD, Emile L. (2017)
19. Çobanoğlu, N., (2009) Kuramsal ve Uygulamalı Tıp Etiği, Eflatun Yayınevi, Ankara.
20. The Cambridge illustrated history of medicine, edited by Roy Porter, Cambridge University Press, 4th edition, 2004.
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| **MED 106 COMMITTEE EXAM WEEK** |
| **DATE** | **EXAM NAME** | **EXAM HOUR** |
| 30.05.2022 | MED 106 Committee Exam | 09:30-12:30 |
| **Teaching Methods and Techniques** |

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

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| **Evaluation Method** | Theoretical Exam (70%), Role Playing (10%), Homework (20%) |
| **Lesson Language** | English |