

T.C.

ATILIM UNIVERSITY MEDICAL FACULTY

EDUCATION IN 2024-2025 ACADEMIC YEAR

MED 204 COMMITTEE CALENDAR, GUIDE & LEARNING OBJECTIVES

**Laboratory Lessons:**

1. Clinical Skills: Throat swap technique and culture (Dr. Tülek & Dr.Usluca) (1 hour)
2. Bacterial culture (Dr. Tülek &Dr. Usluca) (1 hour)
3. The superficial structures of the face Infratemporal, pterygopalatine fossae and parotid region (Dr. Öktem &Dr. Brohi) (1.5 hour)
4. The nose and the pharynx (Dr. Öktem & Dr. Brohi) (1.5 hour)
5. The larynx Anatomy (Dr.Öktem & Dr. Brohi) (1.5 hour)
6. The trachea and the lungs (Dr.Öktem & Dr.Brohi) (1.5 hour)
7. The lateral, anterior aspects of the neck and the root of the neck- (Dr. Öktem & Dr. Brohi) (1.5 hour)
8. Anatomy review (Dr. Öktem & Dr. Brohi) (1.5 hour)
9. Respiratory system histology (Dr. Aykanat) (1 hour)
10. Static and dynamic pulmonary function tests- (Dr. Sarıkaya) (1 hour)

COMMITTEE NAME	STARTING DATE	COMPLETION DATE
MED 204 Respiratory System	07.04.2025	23.05.2025

	MED 201	MED 202	MED 203	MED 204
PRACTICAL EXAM				21.05.2025
CLINICAL SKILLS EXAMINATION				22.05.2025
THEORETICAL EXAM				22.05.2025

**MED 204 RESPIRATORY SYSTEM**

<b>PHASE II COORDINATOR</b>	Asst. Prof. Dr Badegül Sarıkaya			
<b>CHAIR OF THE MED 204 COMMITTEE</b>	Asst. Prof. Dr. Recep Ali BROHİ			
<b>MED 204 COMMITTEE DATE RANGE</b>	07.04.2025 - 23.05.2025			
<b>ACADEMIC STAFF AT THE MED 204 COMMITTEE</b>	Prof. Dr. Necla TÜLEK - Medical Microbiology Prof. Dr. Nedret KILIÇ- Medical Biochemistry Prof. Dr. Gamze YURDAKAN ÖZYARDIMCI - Medical Pathology Prof. Dr. Ahmet SALTİK- Public Health Prof. Dr. Yekbun ADIGÜZEL- Medical Biology Assoc. Prof. Dr. Hale ÖKTEM – Anatomy Asst. Prof. Dr. Recep Ali BROHİ – Anatomy Asst. Prof. Dr. Badegül Sarıkaya - Physiology Asst. Prof. Dr. Sami EREN– Medical Pharmacology Assoc. Prof. Dr. Ezgi Bektur Aykanat - Histology and Embryology Asst. Prof. Dr. Canset Aydın- Ear, Nose, Throat Assoc. Prof. Dr. Selma Usluca – Medical Microbiology			
<b>ACADEMIC STAFF</b>	<b>THEORETICAL LESSON TIME</b>	<b>PRACTICAL LESSON TIME</b>	<b>INTERACTIVE EDUCATION TIME</b>	<b>TOTAL TIME</b>
<b>Anatomy</b>	14	6	-	20
<b>Histology &amp; Embryology</b>	3	1	-	4
<b>Medical Microbiology</b>	23	1	1 (Medical Skills)	25
<b>Medical Pharmacology</b>	6	-	-	6
<b>Medical Pathology</b>	12	-	-	12
<b>Physiology</b>	10	1	-	11
<b>Biophysics</b>	2	-	-	2
<b>Ear, Nose, Throat</b>	1	-	-	1
<b>Public Health</b>	4	-	-	4
<b>Medical Biochemistry</b>	4	-	-	3
<b>TOTAL</b>	79	9	1	89

<b>Office Hour</b>	-
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### **CONTENT of THE MED 204 COMMITTEE**

Introduction of Respiratory System committee, The functions of the respiratory system, Mechanics of breathing, physical principles, volumes and capacities, The superficial structures of the face, Parotid region, Introduction to respiratory system anatomy: The nose and the associated structures, The infratemporal and pterygopalatine fossae, Compliance, resistance-pressure relationship and breathing cycle-1&2, Communication skills, The pharynx-1&2, Upper respiratory system histology, Lower respiratory system histology, Pulmonary and alveolar ventilation- Diffusion of gases through the respiratory membrane, The larynx-1&2, O<sub>2</sub>, CO<sub>2</sub> Transport by the blood; Hb-O<sub>2</sub> binding and dissociation curve-O<sub>2</sub>, CO<sub>2</sub> Transport by the blood; Hb-O<sub>2</sub> binding and dissociation curve- Disorders & neoplasms of the upper airways, Epidemiology of respiratory transmitted diseases-1&2, Important causes of acute upper respiratory system infections (tonsillopharyngitis, otitis, sinusitis, mastoiditis, epiglottitis), The trachea and the lungs-1&2, Mycobacterium tuberculosis, The lateral, anterior aspects of the neck and the root of the neck-1&2, Corynebacterium diphtheriae - pathogenicity, clinic and prevention, Development of pharyngeal apparatus - head and neck, Development of respiratory system and malformations, Congenital abnormalities of the lungs, collapse, pulmonary edema, Lab: The superficial structures of the face and The nose and the pharynx, Lab: Respiratory system histology Lab: Static and dynamic pulmonary function tests, Bordetella; pathogenicity, clinic and prevention, Ventilation-perfusion properties of the lung-1&2, Obstructive & restrictive lung diseases, Obstructive & restrictive lung diseases, History and symptoms of upper respiratory syndrome, Chronic diffuse interstitial (restrictive) diseases of the lung, Lung diseases of vascular origin, RSV, hMP and Adeno virus, Bocca virüs, Beta Coronaviruses (SARS-1, SARS-2, MERS-COV), Measles, Mumps, Rubella, Varicella, Sectional and clinical anatomy, Drugs Used in Asthma & Chronic Obstructive Pulmonary Disease (COPD), Atypical mycobacteria (Mycobacterium avium complex, and others), Tuberculosis Epidemiology : A Worldwide Public Health Problem, Regulation of Respiration 1&2, Respiratory system under stress, exercise, Pathology of Tuberculosis, Antimycobacterial Drugs, Lab: The lateral, anterior aspects of the neck and the root of the neck, Lab: DNA, Lab: The lateral, anterior aspects of the neck and the root of the neck- The larynx Anatomy, Lab: DNA, History and Symptoms in Pulmonary Diseases, Air pollution and public health, Air pollution and public health, TBL, Influenza viruses, Parainfluenzae, Rhinovirus and Coronaviruses, Pulmonary neoplasms-1&2, Pleural disorders & neoplasms, Management of Work Related and Occupational Diseases Caused by Workplace Ambient Air 1&2, Influenza and corona virus vaccines, Sputum examination, Student discussion: Physiology-1&2, "Clinical skill practice: Throat swap technique and culture, Lab: The larynx Anatomy, The trachea and the lungs, Lab: Bacterial culture, Multiple linear regression-1&2, Student discussion: Pathology Q&A, Opportunistic pneumonia agents; (P.jiroveci, Aspergillus and others.), Student discussion : Influenza vaccines; Compulsory or not?, Other bacterial agents of the respiratory tract infection : Actinomycetes, Nocardia. Microbiology, Pneumococcal vaccines, Statistical methods for diagnostic tests, Statistical methods for diagnostic tests, Lab: Pathology of Lung and Pleura. Antibiotics, Antivirals, Antifungals, and Antimycobacterial drugs.

### **MED 204 COMMITTEE AIM**

To make a general definition of infectious and neoplastic diseases associated with the upper respiratory tract and larynx. To describe the etiopathogenic features of lung collapse, congenital anomaly and pulmonary edema. To explain the relationship and differences of chronic obstructive and restrictive lung diseases with their physiopathological mechanisms. Introduction to the general characteristics of chronic diffuse interstitial lung diseases. To define the morphological features of lung infections caused by infectious agents with general principles. To explain the etiopathogenic features and developmental mechanism of tuberculosis Identifying pulmonary hypertension, pulmonary embolism by its mechanisms Introduction to pulmonary neoplasms Explaining pleural disorders with general principles. To be able to describe the microbiological features of M. tuberculosis bacteria. To be able to explain the diseases caused by M. tuberculosis and make differential diagnosis. To be able to describe the microbiological features of Bordetella pertussis. To be able to explain the diseases caused by Bordetella pertussis and make the differential diagnosis. To

be able to describe the microbiological features of Beta Coronaviruses. To be able to explain the diseases caused by Beta Coronaviruses and make the differential diagnosis. To be able to describe the microbiological features of Actinomycetes and Nocardia bacteria. To be able to explain the diseases caused by Actinomycetes and Nocardia bacteria and make the differential diagnosis. To be able to describe the microbiological features of the causative agents of community-acquired pneumonia. To be able to explain the diseases caused by microorganism caused community-acquired pneumonia and make the differential diagnosis. To understand the microbiological characteristics of respiratory pathogens and the diseases they cause. To be able to define indications, immunization programs and vaccines for Influenza immunization of adults and elderly in risk group. To be able to plan and advise the influenza immunization in the risk group. To be able to define indications, immunization programs and vaccines for Pneumococcal immunization of adults and elderly in risk group. To be able to plan and advise the i Pneumococcal immunization in the risk group. To be able to define indications, immunization programs and vaccines for immunization of adults and elderly in risk group. To be able to plan and advise the immunization of adults and the elderly in the risk group. Definition of upper respiratory tract anatomy, anatomical structures of nose, paranasal sinuses, pharynx, larynx to describe the diseases and disfunctions of these organs like rinitis, sinusitis, pharyngitis, laryngitis, septum deviation, tumors, infections, trauma, foreign substances. Definition of lower respiratory tract anatomy, anatomical structures of trachea, lungs and pleura to describe the disfunctions of these organs like obstructions, respiratory failure, pneumoniae, bronchitis and other infections, tumors, trauma. Definition of origin, insertion, functions and innervation of muscles of face and neck region to describe the disfunctions of these muscles like facial paralysis, fibromyalgia, torticollis, trauma, injuries. Name the anatomical structures of external nose, nasal cavity and paranasal sinuses to define the deformities, infections, tumors, trauma, obstructions of them. To understand the relations between pharynx and respiratory and digestive tracts name the anatomical structures located on the pharynx. So can explain the pharyngitis and postnasal discharge, nasal discharge, nasal congestion and disphagia. Name the anatomical structures of larynx to define the laryngitis, larynx tumors, cough, hoarseness. To understand the boundaries and contents of triangles of neck region and cervical fascia sheats, muscles of lateral and anterior aspect and root of neck, primary functions and origin and insertion to use them for the localisation of vessels and nerves. So can explain the disfunctions, tumors, dyspnea. To understand the anatomy and neighborhood of trachea and lungs to determine the function, disfunction of lungs. So can explain the infections, lung failure, obstruction, tumors, foreign substances of lower respiratory tract, chest pain, dyspnea, pleural diseases. : To understand upper and lower respiratory tract anatomy, anatomical structures of nose, paranasal sinuses, pharynx, larynx, trachea, lungs and pleura to describe the diseases and disfunctions of these organs. To be able to know the pharmacological properties of anti-asthmatic drugs. To know the pharmacological properties of drugs used in asthma and COPD. To know the pharmacological properties of antibiotics, antivirals, antifungals, and antimycobacterial drugs.

**MED 204 COMMITTEE LEARNING OBJECTIVES**

1. Defines tumor and non-tumor disorders of the upper respiratory tract
2. Explains common disorders in the larynx with their etiopathogenetic features
3. Describe the pathogenesis of disorders that reduce lung capacity.
4. Explain the physiopathology of lung collapse and acute respiratory distress syndrome.
5. Defines chronic obstructive and restrictive pulmonary diseases
6. Explain the differences between emphysema and chronic bronchitis
7. Defines the pathogenesis of the diseases in the group of chronic obstructive pulmonary diseases, morphological and clinical features
8. Indicates the relationship between the etiopathogenesis and clinical manifestations of these diseases.
9. Defines the general characteristics and classification of chronic diffuse interstitial lung diseases
10. Describes the development mechanisms of chronic diffuse interstitial lung diseases and the clinical radiological findings associated with this mechanism

11. Defines the concept of pulmonary fibrosis and explains its consequences to the causes of fibrosis
12. Describes occupational diseases that cause lung fibrosis and explains their development mechanisms
13. Defines sarcoidosis, lists its clinical and pathological findings
14. Elucidate the differential diagnosis of rare pulmonary interstitial diseases
15. Defines the developmental mechanisms of acute and chronic pneumonia.
16. Explain the pathological changes made by the infectious agents in the tissue.
17. Describes special pneumonia types and physiopathology of lung abscess development.
18. Defines tuberculosis and explains its epidemiological principles
19. Describes the changes of tuberculosis agent in tissues and the stages involved in tuberculosis pathogenesis.
20. Explain the differences between primary and secondary tuberculosis and describe the developmental processes.
21. Defines the development of clinical and radiological findings depending on the damage and changes of tuberculosis in the tissues.
22. Explain the basic principles of tuberculosis clinic.
23. Defines pulmonary diseases of vascular origin.
24. Explain the etiopathogenetic solutions of pulmonary embolism, bleeding and infarction.
25. Describe the physiopathological mechanisms of pulmonary hypertension.
26. Defines primary and metastatic tumors of the lung
27. Determine the etiological causes of lung tumors and their mechanisms for lung cancer development
28. Describes the classification of lung tumors
29. Explain the principles of lung tumor classification and the effects of genetic mechanisms on treatment according to these principles.
30. Describe the histomorphological basic features of common lung tumors
31. Defines the basic clinical and radiological features of lung tumors
32. Defines the general features of nonneoplastic and neoplastic pleural diseases.
33. Explain the etiopathogenetic features of pleural tumors.
34. Define the microbiological features of M. tuberculosis bacteria.
35. Explain the diseases caused by M. tuberculosis and make differential diagnosis.
36. Define the microbiological features of Bordetella pertussis.
37. Explain the diseases caused by Bordetella pertussis and make differential diagnosis.
38. Define the microbiological features of Beta Coronaviruses
39. Explain the diseases caused by Beta Coronaviruses and make differential diagnosis
40. Define the microbiological features of Actinomycetes and Nocardia bacteria.
41. Explain the diseases caused by Actinomycetes and Nocardia bacteria and make differential diagnosis.
42. Define the microbiological features of microorganism caused community-acquired pneumonia
43. Explains the disease characteristics of community-acquired pneumonia and makes differential diagnosis.
44. Define the indications, immunization programs and vaccination for Influenza immunization in adults.
45. Plan and advise on Influenza immunizations.
46. Define the indications, immunization programs and vaccination for Pneumococcal immunization in adults.
47. Plan and advise on Pneumococcal immunization.
48. Define the indications, immunization programs and vaccines for immunization of adults and elderly in risk group.
49. Plan and advise on immunizations of adults and elderly at risk.
50. Define the respiratory system infections, classify infections, list the common etiological agent,

51. Explain the risk factor, explains the epidemiology. Understand the mechanisms by which respiratory infections occur
52. Know how pathogens overcome host defenses Understand what factors increase vulnerability to respiratory infections.
53. Describes the common sign and symptoms.
54. Describes *C. diphtheria*, explains the bacterial characteristics related to pathogenicity, discuss the role of diphtheria toxin in diphtheria, describes the clinic and discuss the importance of prevention.
55. Define specialized methods for laboratory diagnosis of diphtheria. Describes the main treatment agents
56. Understand the mechanisms by which respiratory infections occur. Know how pathogens overcome host defenses. Understand what factors increase vulnerability to these respiratory infections. Explain the symptoms, clinical findings and management of diseases. Evaluate the differential diagnosis between the viral and bacterial infections in the respiratory system Describe the diagnostic methods
57. Define the non-tuberculous mycobacteria and differentiation. Analyze the epidemiology of nontuberculous mycobacteria (NTM). Explain which factors contribute to the vulnerability Evaluate the clinical presentation of pulmonary disease due to NTM. Distinguish diagnostic criteria for pulmonary disease due to NTM. Assess treatment options for pulmonary NTM disease.
58. Describe influenza viruses, their structure, how they are transmitted, how they infect cells and replicate and how they produce their damage in the host. Describe how strains of the virus change over time, and relate this to the flu viruses that occur in birds and other mammals. Explain how the epidemic pattern of influenza can be related to the evolution of new strains of virus and to the specificity of the immune response against each strain. Discuss the origin of new influenza strains. Explain the process of infection and replication of influenza viruses. Outline the symptoms and complications of influenza infection. Distinguish between pharmaceutical and non-pharmaceutical interventions to mitigate influenza epidemics and pandemics.
59. Describe the characteristics and transmission of viruses. Describe the diseases, clinical findings and differentiation from influenza occur understand what factors increase vulnerability to respiratory infections.
60. Review of sputum collection procedures. Describes specimen quality–grading systems.
61. Learn smear preparation, staining, evaluation.
62. Identify the microbiological properties of *P. jiroveci* and *Aspergillus*.
63. Identify patients at high risk of developing PCP, *Aspergillus*., Describe the pathophysiology. Summarize the clinical presentations. Describe the diagnosis methods of *P. jiroveci* and *Aspergillus*. Outline the treatment and management options available for.
64. Understand the principles of collecting good throat swabs. Be able to perform the procedure in a way that is safe for the patient and the collect good throat swabs for bacterial. and respiratory virus testing. Complete the necessary documentation
65. Describe bacterial characteristics, structure and classification of. *Mycoplasma*, *Coxiella*, *Chlamydia* and *Chlamydophila*, *Legionellae*. Describe the mechanisms of bacterial invasion of hosts and virulence factors. Define various portals of entry and the routes of transmission of the infection. Explain the importance of history and clinical findings. Describe the diagnostic and treatment approach
66. Defines the structure, and explains the functions of the respiratory system
67. Explains the factors regulating ventilation mechanics (elastic properties of the lung, negative pressure inside the thorax); Interprets the changes in flow, resistance relations and partial gas pressures during the passage of air through the upper airways during breath exchange
68. Defines pulmonary and alveolar ventilation, explains the difference between them.
69. Describes the dynamics of the exchange of oxygen and carbon dioxide between the atmosphere and blood

70. Describes the dynamics of the exchange of oxygen and carbon dioxide between blood and the cell, describes the transport of these gases and the biochemical reactions in this process; Describes the O<sub>2</sub> binding mechanism to myoglobin and Hemoglobin and defines allosteric interactions
71. Defines the circulation and blood flow dynamics, interprets the relationship with gas exchange in the lung
72. Explains the regulation of breathing, the role of breathing in acid-base balance; Defines the centers in the brain stem that regulate respiratory activity, their functions, the structure and functions of peripheral and central chemoreceptors that carry data to these centers
73. Understands and interprets the changes of respiratory system functions in exercise, height and underwater
74. Explains the physiological basis of static and dynamic pulmonary function tests, measures, and evaluates the test results
75. Describe the external nose and the nasal cavity
76. Says the borders of piriform aperture and the walls of the nasal cavity
77. Describe the part of the nasal cavity
78. Describe the blood supply, nerve supply, lymphatic drainage of the nasal cavity and external nose
79. Describe the functions and gross anatomy of paranasal sinuses
80. Describe the layers of the SCALP
81. Describe the muscles of facial expression
82. Describe the blood supply, and innervation
83. Describe the clinical importance of the face
84. Determines the structures those contribute to the walls of temporal and infratemporal fossae
85. Determines the contents of the fossae
86. Describes the relations of the structures located in the fossae
87. Determines the connections of the fossae
88. Determines the vascularisation and the innervations of the structures located in the fossae
89. Determines the vascular structures in the fossa and their branches
90. Determines the nerves in the fossae and their branches
91. Determines the structures those contribute to the walls of parotid region
92. Determines the contents of the parotid region
93. Describes the relations of the structures located in the parotid region
94. Determines the vascularisation and the innervations of the structures located in the region
95. Determine the parotid gland
96. Define the anatomical location of pharynx
97. Says the parts of pharynx (nasopharynx, oropharynx, laryngopharynx) and determine the anatomical structures related with the parts
98. Define the neighbours of pharynx
99. Define the Waldeyer's ring
100. Define the anatomy of palatine tonsil and its clinic
101. Says the muscles of pharynx and their function and innervation
102. Define the anatomical location of larynx
103. Says the parts of larynx (vestibule, ventricle, infraglottic cavity) and determine the anatomical structures related with the parts
104. Define the neighbours of larynx
105. Describe the cartilages, ligaments, membranes and muscles of the larynx
106. Says the innervation and functions of the muscles of larynx
107. Says the sensory innervation of larynx
108. Says the boundaries and palpation points of the neck
109. Says the cervical fascia sheaths in the neck
110. Arrays the interfascial spaces and their boundaries
111. Arrays the vessels and nerves of the neck

112. Says the origo and insertio of the muscles of the neck
113. Arrays the adjacent structures of the muscles of the neck
114. Identify the triangles of the neck, boundaries of anterior cervical region, lateral cervical region
115. Define the structures in the triangles of the neck
116. Determine the anatomical location of trachea
117. Describe the neighbors of trachea
118. Describe the fissures and lobes of right and left lungs
119. Identify the root of lung
120. Says the differences between right and left lung
121. Describes the arterial supply, venous drainage and lymphatic drainage of trachea and lungs
122. Determine the bronchial tree
123. Describe the bronchopulmonary segments
124. Identify 4 techniques used in a respiratory assessment.
125. Describe normal assessment findings for chest inspection.
126. Recognize disturbances in breathing rate and rhythm.
127. Describe normal assessment findings for chest palpation.
128. Describe normal assessment findings for chest percussion.
129. Differentiate among the following sounds heard and felt on percussion: resonant sounds; flat sounds; dull sounds; hyperresonant sounds; and tympanic sounds.
130. Describe normal assessment findings for chest auscultation.
131. Describe the characteristics and implications of the following abnormal breath sounds: crackles or rales; wheezes, rhonchi, stridor.
132. Describe the implications of the following transmitted voice sounds: whispered pectoriloquy, bronchophony, egophony.
133. Discuss the history of tobacco use in the world.
134. List types of tobacco products and nicotine delivery devices.
135. List the harmful chemicals in tobacco products.
136. Describe tobacco use prevalence.
137. Describe the effects of addiction on individuals.
138. Define the key features of nicotine dependence
139. List the leading causes of death in the world.
140. Describe the anatomy, ingredients, and by products of a cigarette, smokeless tobacco, electronic cigarettes, and cigar.
141. Discuss the effect of tobacco on the various systems of the body.
142. List both short- and long-term health effects of using tobacco
143. Discuss tobacco effects specific to women/children/infant.
144. Understand the strength of the evidence supporting the health effects of tobacco secondhand smoke (TSHS) in children
145. Describe the effects of 3rd hand smoke.
146. Describe the evaluation of cyanosis.
147. Identify the differential diagnosis of central and peripheral cyanosis.
148. Form a differential diagnosis for cyanosis and when to consider methemoglobinemia
149. Understand the etiology and pathophysiology of cyanosis and to formulate an approach to its differential diagnosis.
150. Describe the blue baby syndrome.
151. Describe the differential cyanosis.
152. Describe the pseudocyanosis.
153. Describe the acrocyanosis.
154. Describe the dyspnea.
155. Outline the causes of dyspnea.
156. Know the grading scales for dyspnea.



157. Review the importance of improving care coordination amongst interprofessional team members to improve outcomes for patients affected by dyspnea.
158. List the types of dyspnea
159. Knows the pharmacological properties of anti-asthmatic drugs and the drugs used in COPD.
160. Knows the pharmacological properties of antibiotics.
161. Knows the pharmacological properties of antivirals.
162. Knows the pharmacological properties of antifungals.
163. Knows the pharmacological properties of antimycobacterial drugs.

**RECOMMENDED BOOKS**

1. Robbins Basic Pathology Tenth Ed., 2018 by Elsevier Inc Vinay Kumar, MBBS, MD, FRCPath., Abul K. Abbas, MBBS, Jon C. Aster, MD, PhD
2. Understanding pathophysiology First canadian Ed. 2018 by Elsevier Inc. Sue Huether; Kelly PowerKean; Mohamed ElHusseini
3. 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
4. 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 Valentina L. Brashers, Neal S. Rote, PhD
5. Rapid Review Pathology, Fifth Edition 2019 by Elsevier, Inc. Edward F. Goljan, MD
6. Guyton and Hall Textbook of Medical Physiology (13th Edition); John E. Hall; Elsevier, Philadelphia, 2016.
7. Medical Physiology 3rd Edition by Boron MD PhD, Walter F, Boulpaep MD, Emile L. (2017)
8. Physiology 6th Edition by Costanzo PhD, Linda S. (2017)
9. Katzung's Basic and Clinical Pharmacology (Ed. Todd W. Vanderah), 16th Edition, McGraw Hill Lange, 2023.
10. 2. Basic and Clinical Pharmacology (Ed. Katzung BG, Masters SB, Trevor AJ), 12th Edition, McGraw Hill Lange, 2012.
11. 3. Goodman and Gilman's The Pharmacological Basis of Therapeutics (Eds: L. Brunton, B. Knollmann), 14th Edition, McGraw Hill, 2022.
12. 4. Goodman & Gillman's The Pharmacological Basis of Therapeutics (Ed. Brunton LL, Hilal-Dandan R, Knollmann BC), 13th Edition, McGraw-Hill Education, 2018.
13. Apurba S Sastry, Sandhya Bhat, Essentials of Medical Microbiology, 3th Edition, JAYPEE BROTHERS Medical Publishers, New Delhi | London, 2021.
14. Tietz Textbook of Laboratory Medicine, Nader Rifai, Rossa WK Chiu, Ian Young, Carey-Ann D Burnham, Carl T Wittwer, Elsevier, 7th Edition, 2020.

**MED 204 COMMITTEE EXAM WEEK**

DATE	EXAM NAME	EXAM HOUR		
21.05.2025	Practical Examination	09.30-12.20		
22.05.2025	MED 204 Theoretical Exam	09.30-12.20		
22.05.2024	Clinical Skills Examination	13.30-17.20		
<b>Teaching Methods and Techniques</b>	<input checked="" type="checkbox"/> Lecture	<input type="checkbox"/> Case based learning	<input type="checkbox"/> Case discussion	<input type="checkbox"/> Student presentation
	<input checked="" type="checkbox"/> Discussion	<input checked="" type="checkbox"/> Problem based learning	<input type="checkbox"/> Project	<input type="checkbox"/> Homework
	<input type="checkbox"/> Role playing	<input type="checkbox"/> Team based learning	<input type="checkbox"/> Report preparing	<input checked="" type="checkbox"/> Self Learning
<b>Evaluation Method</b>	Theoretical Exam(%80) , Practical exam(%10) , Clinical Skills Exam (%) ,PBL (%)			
<b>Language of lectures,</b>	English			

<b>practicals and all exams</b>	
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