

International School of Medicine / Medicine (English)

2023 - 2024 Academic Year

RESPIRATORY and CIRCULATORY BLOCK

Syllabus

Course Description					
Name	Code	Semester	T+A Hour	Credit	ECTS
RESPIRATORY and CIRCULATORY BLOCK	ISM4214656	Spring Semester	62+78	0	10
Prerequisites Courses					
Recommended Elective Courses					
Language of Instruction	English				
Course Level	First Cycle (Bachelor's Degree)				
Course Type	Practice				
Course Coordinator	Prof.Dr. Mehmet BAYRAM				
Name of Lecturer(s)	Prof.Dr. Erdođan KUNTER, Prof.Dr. Mustafa Kürşat ÖZVARAN, Prof.Dr. Dursun DUMAN, Prof.Dr. İrfan BARUTÇU, Prof.Dr. Cengiz EROL, Prof.Dr. Mehmet Zeki GÜNLÜOĐLU, Prof.Dr. Ekrem GÜLER, Assist.Prof. Fatih Erkam OLGUN, Prof.Dr. İbrahim Ođuz KARACA, Prof.Dr. Fethi KILIÇASLAN, Prof.Dr. Hacı Murat GÜNEŞ, Prof.Dr. Zekeriya NURKALEM, Assist.Prof. Mustafa DÜGER, Assist.Prof. Abdullah KANSU, Prof.Dr. Mehmet BAYRAM, Prof.Dr. Muhammed Emin AKKOYUNLU, Assist.Prof. Arzu YAZAR, Assist.Prof. Melahat BEKİR KÜLAH, Assoc.Prof. Beytullah ÇAKAL, Assist.Prof. Aykun HAKGÖR				
Assistant(s)	Prof.Dr. Erdođan KUNTER, Prof.Dr. Mustafa Kürşat ÖZVARAN, Prof.Dr. Dursun DUMAN, Prof.Dr. İrfan BARUTÇU, Prof.Dr. Cengiz EROL, Prof.Dr. Mehmet Zeki GÜNLÜOĐLU, Prof.Dr. Ekrem GÜLER, Dr.Öđr.Üye. Fatih Erkam OLGUN, Prof.Dr. İbrahim Ođuz KARACA, Prof.Dr. Fethi KILIÇASLAN, Doç.Dr. Hacı Murat GÜNEŞ, Prof.Dr. Zekeriya NURKALEM, Dr.Öđr.Üye. Mustafa DÜGER, Prof.Dr. Aydın YILDIRIM, Prof.Dr. Özgür Ulaş ÖZCAN, Dr.Öđr.Üye. Abdullah KANSU, Prof.Dr. Mehmet BAYRAM, Prof.Dr. Muhammed Emin AKKOYUNLU, Dr.Öđr.Üye. Arzu YAZAR, Dr.Öđr.Üye. Melahat BEKİR KÜLAH, Doç.Dr. Beytullah ÇAKAL				
Aim	Aim is to understand the etiology and risk factors, to learn what kind of tests are done to recognize the disease, to be able to make differential diagnosis and treatment .. to manage emergencies related to the disease.CardiologyTo increase awareness about the common issues of the patients with cardiovascular disease that increased in number thanks to advanced treatment facilities and raised elderly population.To provide a comprehensive knowledge about cardiovascular diseases which might be fatal if misdiagnosed.				
Course Content	This course contains; Chest diseases-case base-PULMONARY EMBOLISM(2 hours),Introduction to Chest Diseases and Thoracic Surgery,Physical examination,Arterial gas sampling and interpretation,Pulmonary function tests, indications, application and interpretation,Thoracic imaging methods, Chest X-ray and Thoracic BT,COPD diagnosis and treatment,Asthma Diagnosis and Treatment,Bronchiectasis Diagnosis and Treatment,Pneumonia Diagnosis, Classification and Treatment,Pulmonary Embolism Diagnosis and Treatment,Respiratory Insufficiency,Lung Cancer Classification and Diagnosis,Tuberculosis Diagnosis and Treatment,Allergic Diseases and Anaphylaxis,Interstitial Lung Diseases,Occupational Diseases,Sleep Diseases and Non-invasive Treatment Methods,Bronchoscopy and Invasive Diagnosis and Treatment Methods,Pneumothorax Diagnosis, Symptoms and Treatment,Thoracic Surgery,Pleural effusion, discrimination of transudate and exudate, Thorosynthesis, Pleurodesis Indications and Methods,Chest Wall Abnormalities, diaphragmatic and Mediastinal Diseases Symptoms and Physical Examination Findings,Approach to Chest Trauma and Emergency Intervention,Congenital Chest Wall Deformities,Eosophagial and Diaphragmatic Pathologies in Need of Surgery and the Diagnostic Methods,Cardiology-Acute Coronary Sydromes (STEMI and NSTEMI) 2 hours,Vasculitis and the Respiratory System,Pulmonary Edema and ARDS,Chest Emergencies,Interstitial Lung Diseases and Sarcoidosis,Thoracic Outlet Syndrome, Symptoms and Treatment,Chest Wall Tumors,Malignant Pleural Effusions,Acid-Base Balance Disturbances,Mediastinal Tumors and Cysts,Malignant Pleural Mesothelioma,Preoperative Evaluation,History Taking and Physical Examination in Cardiovascular System Disorders,Basic ECG and rhythm disorders 1-2,Myocarditis and Cardiomyopathies,Peripheral Vascular Diseases 1-2,Follow-up and Treatment Strategies in Chronic Heart Failure,Acute Heart Failure and Cardiogenic Shock,Cardiology-case-base- Heart failure (2 hours),Atherosclerotic Process and Diagnostic and Therapeutic Approach in Stable Ischemic Heart Disease (2 hours),Acute Rheumatic Fever and Infective Endocarditis 1-2,Percutaneous Treatment Options in Structural Heart Diseases,Deep Venous Thrombosis and Pulmonary Embolism,Tachyarrhythmias,Bradycardias,Evaluation of Heart and Major Vessels in Chest X-ray and Basic Echocardiographic Assessment,Syncope and Sudden Cardiac Death,Diagnosis and Treatment of Aortic Diseases,Cardiology-case base-Acute coronary syndrome (2 hours),Cardiology-case-base-Valvular heart diseases (2 hours),Diagnostic and Therapeutic Approach to Atrial Fibrillation,case-base-Acute pulmonary edema (2 saat),Pericardial Diseases,Hypertension,Valvular Heart Diseases 1-2,case-base-Heart rhythm disorders (2 hours),General Approach to Dyspnea and Treatment of Acute Heart Failure,General Approach to Dyspnea and Treatment of Acute Heart Failure ,General App roach to Arrhythmia with ECG Templates,Pulmonary Hypertension,Chest diseases-case base-PNEUMONIA (2 hours),Chest diseases-case base-ASTHMA (2 hours),Chest diseases-case base-TUBERCULOSIS (2 hours),Chest diseases-case base- PULMONARY EMBOLISM (2 hours),Chest diseases-case base-RESPIRATORY INSUFFICIENCY(2 hours),Chest diseases-case base-BRONCHIECTASIS (2 hours),Chest diseases-case base-SARCOİDOSİS (2 hours),Chest diseases-case base-CHRONIC OBSTRUCTIVE LUNG DISEASES(2 hours),Chest diseases-case base-ARDS (2 hours).				
Course Learning Outcomes	Teaching Methods	Assessment Methods			
Aim is to understand the etiology and risk factors, to learn what kind of tests are done to recognize the disease, to be able to make differential diagnosis and treatment .. to manage emergencies related to the disease.	16, 6, 9	A, D			
Defines pathologies needing surgical intervention and diagnostic methods in esophageal and diaphragmatic diseases.	16, 6, 9	A, D			
Defines congenital chest wall deformities and evaluates treatment options.	16, 6, 9	A, D			
Explains the treatment approaches and indications of emergency intervention in thoracic trauma.	16, 6, 9	A, D			
Summarizes diagnostic criteria and treatment options in pleural effusion.	16, 6, 9	D			
Recognizes the symptoms, makes the diagnosis and treats pneumothorax,	16, 6, 9	A, D			
Explains the symptoms and physical examination findings in pathological situations of the lungs resulting from occupational exposures.	16, 6, 9	A, D			
Summarizes symptoms and physical examination findings in pulmonary hypertension.	16, 6, 9	A, D			
Makes the diagnosis of Asthma, ARDS and COPD, plans first intervention in case of acute attack.	16, 6, 9	A, D			
Describes the symptoms of bronchiectasis and plans treatment.	16, 6, 9	A, D			
Describes the risk factors, symptoms and findings of pulmonary embolism and performs emergency intervention.	16, 6, 9	A, D			
Defines the symptoms and physical examination findings of sleep related respiratory disorders.	16, 6, 9	A, D			
Describes symptoms and physical examination findings of chest wall abnormalities, diaphragmatic and mediastinal diseases.	16, 6, 9	A, D			
Explains the symptoms and physical examination findings of interstitial lung diseases.	16, 6, 9	A, D			
Evaluates the respiratory failure patient and summarizes the indications of CPAP, BPAP.	16, 6, 9	A, D			
Takes blood gas samples and comments on the results.	16, 6, 9	A, D			
Explains the signs, symptoms and treatment of lung tuberculosis.	16, 6, 9	A, D			
Knows the causes of pleural effusions and differentiates exudates from transudates.	16, 6, 9	A, D			
Summarizes the signs and symptoms of lung malignancies.	16, 6, 9	A, D			
Classifies pneumonias and plans treatment.	16, 6, 9	A, D			

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In the case of chest disease patients; takes history, performs physical examination, orders tests, interprets symptoms, pulmonary function tests and radiological findings.		16, 6, 9	A, D
<p>CardiologyInformation - Remembers the anatomy, physiology and histology knowledge about coronary arteries, major vessels, and heart valves. Forms a differential diagnosis list by integrating the history taken by using effective communication abilities, physical examination, and diagnostic tests. Explains physiopathology and reasons of the cardiovascular system symptoms and their association with other systems. Expresses and interprets frequently encountered clinical, laboratory and pathologic findings of coronary artery disease, heart failure, hypertension, and atrial fibrillation. Explains general epidemiologic features and preventive measures in coronary artery disease, heart failure, hypertension, atrial fibrillation, acute rheumatic fever, and venous embolism and thrombosis. Recalls as a pre-diagnosis by using specifications obtained with history and physical examination and refers to the specialist for further investigation and treatment where required in heart valve diseases, arrhythmias, endocarditis, myocarditis, cardiomyopathies, pulmonary embolism, pulmonary hypertension, pericardial effusion, and aortic aneurysm and dissection. Reach the diagnosis by interpreting the diagnostic test results, consults and follows by explaining risk factors and expresses the preventive measures targeting the decrease in the frequency of the disease in heart failure, coronary artery disease, and hypertension. After having the diagnosis with the utilization of appropriate diagnostic tests, plans the treatment in line with rational drug use principles; and explains the basic features and severe side effects of these drugs in heart failure and hypertension. Explains the clinical features of life-threatening conditions like acute coronary syndromes, acute heart failure, hypertensive emergency, pulmonary embolism, ventricular malignant arrhythmias, bradyarrhythmias like complete AV block, and aortic dissection, manages emergent treatment and lists further diagnostic tests and transfer criteria. Can count the procedural steps of pericardiocentesis.</p>		16, 3, 37, 4, 9	A, D, H
<p>CardiologyAttitude - Uses the diagnostic modalities from simple to complex ones. Applies rational drug use principles. Communicates with patients, patient representatives, and colleagues in an effective manner both in written and oral language. Understands the significance of the multidisciplinary approach in the management of hypertension, aortic diseases, and coronary artery disease. Uses evidence-based medicine and self-learning skills during performing the daily practice as a practitioner. Follows the update literature. Appreciates human and patient rights and adopts the principles of protection of personal data.</p>		13, 16, 4	A, D
<p>CardiologySkills - Can perform physical examination of the cardiovascular system. Measures blood pressure. Obtains and interprets the ECG. Can administer electrical treatments restoring normal rhythm (cardioversion/defibrillation).</p>		10, 11, 13, 16, 37, 4, 9	A, D
Teaching Methods	10: Discussion Method, 11: Demonstration Method, 13: Case Study Method, 16: Question - Answer Technique, 3: Problem Bated Learning Model, 37: Computer-Internet Supported Instruction, 4: Inquiry-Based Learning, 6: Experiential Learning, 9: Lecture Method		
Assessment Methods	A: Traditional Written Exam, D: Oral Exam, H: Performance Task		
Lecture Schedule			
Sequenc e	Topics	Preliminary Preparation	
0	Chest diseases-case base-PULMONARY EMBOLISM(2 hours)	none	
1	Introduction to Chest Diseases and Thoracic Surgery	none	
2	Physical examination	none	
3	Arterial gas sampling and interpretation	none	
4	Pulmonary function tests, indications, application and interpretation	none	
5	Thoracic imaging methods, Chest X-ray and Thoracic BT	none	
6	COPD diagnosis and treatment	none	
7	Asthma Diagnosis and Treatment	none	
8	Bronchiectasis Diagnosis and Treatment	none	
9	Pneumonia Diagnosis, Clasification and Treatment	none	
10	Pulmonary Embolism Diagnosis and Treatment	none	
11	Respiratory Insufficiency	none	
12	Lung Cancer Clasification and Diagnosis	none	
13	Tuberculosis Diagnosis and Treatment	none	
14	Allergic Diseases and Anaphylaxis	none	
15	Interstitial Lung Diseases	none	
16	Occupational Diseases	none	
17	Sleep Diseases and Non-invasive Treatment Methods	none	
18	Bronchoscopy and Invasive Diagnosis and Treatment Methods	none	
19	Pneumothorax Diagnosis, Symptoms and Treatment	none	
20	Thoracic Surgery	none	
21	Pleural effusion, discrimination of transudate and exudate, Thorosynthesis, Pleurodesis Indications and Methods	none	
22	Chest Wall Abnormalities, diaphragmatic and Mediastinal Diseases Symptoms and Physical Examination Findings	none	
23	Approach to Chest Trauma and Emergency Intervention	none	
24	Congenital Chest Wall Deformities	none	
25	Easophagial and Diaphragmatic Pathologies in Need of Surgery and the Diagnostic Methods	none	
26	Cardiology-Acute Coronary Sydromes (STEMI and NSTEMI) 2 hours	none	
27	Vasculitis and the Respiratory System	none	
28	Pulmonary Edema and ARDS	none	
29	Chest Emergencies	none	
30	Interstitial Lung Diseases and Sarcoidosis	none	
31	Thoracic Outlet Syndrome, Symptoms and Treatment	none	
32	Chest Wall Tumors	none	
33	Malignant Pleural Effusions	none	

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Sequence	Topics	Preliminary Preparation
34	Acid-Base Balance Disturbances	none
35	Mediastinal Tumors and Cysts	none
36	Malignant Pleural Mesothelioma	none
37	Preoperative Evaluation	none
38	History Taking and Physical Examination in Cardiovascular System Disorders	none
39	Basic ECG and rhythm disorders 1-2	none
40	Myocarditis and Cardiomyopathies	none
41	Peripheral Vascular Diseases 1-2	none
42	Follow-up and Treatment Strategies in Chronic Heart Failure	none
43	Acute Heart Failure and Cardiogenic Shock	none
44	Cardiology-case-base- Heart failure (2 hours)	none
45	Atherosclerotic Process and Diagnostic and Therapeutic Approach in Stable Ischemic Heart Disease (2 hours)	none
46	Acute Rheumatic Fever and Infective Endocarditis 1-2	none
47	Percutaneous Treatment Options in Structural Heart Diseases	none
48	Deep Venous Thrombosis and Pulmonary Embolism	none
49	Tachyarrhythmias	none
50	Bradyarrhythmias	none
51	Evaluation of Heart and Major Vessels in Chest X-ray and Basic Echocardiographic Assessment	none
52	Syncope and Sudden Cardiac Death	none
53	Diagnosis and Treatment of Aortic Diseases	none
54	Cardiology-case base-Acute coronary syndrome (2 hours)	none
55	Cardiology-case-base-Valvular heart diseases (2 hours)	none
56	Diagnostic and Therapeutic Approach to Atrial Fibrillation	none
57	case-base-Acute pulmonary edema (2 saat)	none
58	Pericardial Diseases	none
59	Hypertension	none
60	Valvular Heart Diseases 1-2	none
61	case-base-Heart rhythm disorders (2 hours)	none
62	General Approach to Dyspnea and Treatment of Acute Heart Failure	none
63	General Approach to Dyspnea and Treatment of Acute Heart Failure	none
64	General Approach to Arrhythmia with ECG Templates	none
65	Pulmonary Hypertension	none
67	Chest diseases-case base-PNEUMONIA (2 hours)	none
68	Chest diseases-case base-ASTHMA (2 hours)	none
69	Chest diseases-case base-TUBERCULOSIS (2 hours)	none
70	Chest diseases-case base- PULMONARY EMBOLISM (2 hours)	none
71	Chest diseases-case base-RESPIRATORY INSUFFICIENCY(2 hours)	none
72	Chest diseases-case base-BRONCHIECTASIS (2 hours)	none
73	Chest diseases-case base-SARCOİDOSİS (2 hours)	none
74	Chest diseases-case base-CHRONIC OBSTRUCTIVE LUNG DISEASES(2 hours)	none
75	Chest diseases-case base-ARDS (2 hours)	none
Evaluation Methods		Weight(%)
Midterm Exam		40
General Exam		60

Resources
<p>The course notes of Lecturer</p> <p>Harrison's Cardiology textbook Topol Handbook of CardiologyRespiratory Diseases and Basic Reference Book 1-2 , Ph.D. Tevfik FLUX Dr. Muzaffer METİNTAŞ Dr. Mehmet MONTENEGRO Dr. Akin Kaya , Istanbul Medical Bookstore - 2010 Thoracic Surgery, Volume 2 , Prof. Dr. Ilker COVERS , Istanbul Medical Bookstore 2013 Düz</p>