MED 3004: INTRODUCTION TO INTERNAL MEDICINE		
Course Date	January 18-February 11, 2021	
Exam Dates	Theoretical Exam: Feb 11, 2021	
Course Coordinator:	FATİH ÖZDENER	
Academic Unit	**Academic Staff**	**Theoretical hours**
Internal Medicine	Cengiz Bölükbaş, Prof. Başak Öven, Prof. Elif Arı Bakır, Prof. Fulya Coşan, Prof. Füsün Bölükbaş, Prof. Serkan Çelik, Assoc. Prof. Yavuz Furuncuoğlu, Assoc. Prof. Deniz Maktav Çelikmen, Assist.Prof. Ali Durdu, Assist. Prof. Selçuk Yusuf Şener, Assist. Prof.	44
Pulmonary Medicine	Şevket Özkaya, Prof.	4
Cardiology	Sabahattin Gündüz, Assoc. Prof.	4
TOTAL		52

COURSE AIM:

The aim of this course is to provide comprehensive information on the diagnosis and management of some of the most commonly encountered diseases in Internal Medicine practice.

LEARNING OUTCOMES:

			At the end of this lesson, the student will be able to:
DEP.	**TOPIC**		**LEARNING OUTCOMES**
INTERNAL MEDICINE	GENERAL INTERNAL MEDICINE	History taking and physical examination in Internal Medicine (T-1)	1. Elicit the patient's chief complaint, history of present illness, past medical history, social, family, occupational histories and complete a review of systems 2. Perform a physical examination in a logical, organized and thorough manner 3. Describe the steps for obtaining a patient's vital signs 4. State normal values for adult vital signs 5. Demonstrate the ability to use data for clinical decisions
		Examination of head and neck (T-1)	1. Describe the common methods of physical examination of the head and neck: Inspection, palpation, auscultation 2. Describe the location and examination methods of lymph nodes 3. List the causes of lymph node enlargement
		Approach to patient with weakness (T-1)	1. Determine what the patient means by weak. 2. Take the history of a patient with weakness 3. Make the physical examination of a patient with weakness 4. List the laboratory tests that may aid in diagnosis
		Hypertension (T-1)	1. Describe the pathophysiology and clinical findings of hypertension (HT) 2. Describe the staging and treatment algorithm of HT 3. List the complications of HT
	NEPHROLOGY	History taking and physical examination in Nephrology (T-1)	1. Gather the important information that is needed for the nephrology history 2. Make a pertinent physical examination for the evaluation of nephrology consult patient 3. Interpret renal function tests 4. Interpret glomerular filtration rate in acute kidney injury and chronic kidney disease 5. Know how to differentiate findings on the urinalysis
		Acute Kidney Injury (acute renal failure) (T-1)	1. Describe the definition of acute kidney injury 2. Describe the etiology and pathophysiology of acute kidney injury 3. Define the clinical evaluation and prevention of acute kidney injury 4. Describe the non dialytic management of acute kidney injury
		Chronic Renal Failure (chronic kidney disease) (T-1)	1. Define chronic kidney disease 2. Explain the pathophysiology of chronic kidney disease 3. Describe the clinical findings of chronic kidney disease 4. Take preventive measures against the development of chronic kidney disease 5. List the complications of chronic kidney disease

			6. Arrange the initial treatments and refer to a specialist
		Approach to a patient with proteinuria (T-1)	1. Define normal range of proteinuria 2. Define abnormal range of proteinuria 3. Describe nephrotic and nephritic syndrome 4. Explain types of proteinuria
		Approach to a patient with electrolyte disorders (T-1)	1. Explain general principles of disorders of water balance 2. Explain general principles of disorders of sodium balance 3. Explain general principles of disorders of potassium balance 4. Define hyponatremia and hypernatremia 5. Define hyperkalemia and hypokalemia
		Approach to a patient with anuria, oliguria, polyuria, pollakiuria or nocturia (T-1)	1. Describe urinary symptoms including anuria, oliguria, polyuria, pollakiuria and nocturia 2. Clinical application of these urinary symptoms in clinical decisions
		Approach to a patient with hematuria (T-1)	1. Describe the pathophysiology and clinical findings of hematuria 2. Explain types of glomerular diseases
		Approach to patient with edema (T-1)	1. Identify the symptoms and signs of edema 2. Organize and prioritize a differential diagnosis based on specific findings of edema 3. Order appropriate laboratory and diagnostic studies for the most likely etiologies of edema
	GASTROENTEROLOGY	History taking in Gastroenterology (T-1)	1. Comprehend how to communicate with a patient 2. Elicit the patient's chief complaint as well as a complete list of the patient's concerns. 3. Obtain a patient's history in a logical, organized, and thorough manner, covering the history of present illness; past medical history (including usual source of and access to health care, childhood and adult illnesses, injuries, surgical procedures, obstetrical history, psychiatric problems, hospitalizations, transfusions, medications, tobacco and alcohol use, and drug allergies); preventive health measures; social, family, and occupational history; and review of systems. 4. Describe a symptom, including location and radiation, intensity, quality, onset, duration, frequency, alleviating factors, aggravating factors and associated symptoms. 5. Identify the key findings of history taking and combine it with physical examination.
		Physical examination in Gastroenterology (T-1)	1. Assessment to give position the patient and self properly for each part of the physical examination. 2. Perform a physical examination for a patient in a logical, organized, respectful, and thorough manner, giving attention to the patient's general appearance, vital signs, and pertinent body regions. 3. Recognize the importance of methods of physical examination: inspection, palpation, percussion, and auscultation. 4. Adapt the scope and focus of the history and physical exam appropriately to the medical situation and the time available. 5. Identify life-threatening situations
		Approach to a patient with nausea and vomiting (T-1)	1. Describe the pathophysiologic mechanisms of nausea and vomiting. 2. Recognize the definition and differential diagnosis of nausea and vomiting

			3. Identify common causes of nausea and vomiting. 4. Define the complications of severe vomiting
		Approach to a patient with hematemesis and melena , hematochezia (T-1)	1. Define hematemesis, melena and hematochezia. 2. Describe, and prioritize the common causes for and symptoms of upper and lower GI blood loss 3. Recommend laboratory and diagnostic tests to evaluate GI bleeding, 4. Develop an appropriate evaluation and treatment plan for patients with a GI bleeding
		Approach to a patient with diarrhea, constipation (T-1)	1. Define diarrhea and review the different terminologies in diarrhea 2. Explain the causes, clinical symptoms and the metabolic changes during diarrhea 3. Define the constipation 4. Recognize the differences between functional versus organic causes of constipation.
		Approach to a patient with abdominal pain (ACUTE) (T-1)	1. Recognize the definition and differential diagnosis of acute abdominal pain 2. List symptoms and signs indicative of an acute abdomen 3. List the most frequent causes of acute abdominal pain? 4. Describe the key diagnostic criteria for common causes of abdominal pain, based on a history, physical exam and laboratory testing
		Approach to a patient with hepatomegaly (T-1)	1. Identify the possible causes of hepatomegaly and splenomegaly 2. List the important diagnostic considerations in patients who have hepatomegaly 3. Describe what clinical findings of hepatomegaly
		Approach to a patient with jaundice, pruritis (T-1)	1. Describe hyperbilirubinemia and list the causes of hyperbilirubinemia 2. Define cholestatic and hepatocellular liver disease 3. Define the difference between intrahepatic and extrahepatic cholestasis 4. Outline an approach to the evaluation of the jaundiced patient. 5. List of the pruritus causes
	ONCOLOGY	Clinical skills learning (Preparation of a patient file) (T-1)	1. Take history from a patient 2. Prepare a patient file with writing history and physical examination 3. Elicit the patient's past medical history, social, family, and occupational histories 4. Review the symptoms of all systems
		Clinical skills learning (Presenting of a case) (T-1)	1. Describe how to prepare a case report 2. Describe how to present a case as a power point
		Approach to patient with fever (T-1)	1. Become familiar with the definition of fever of known origin (FUO) 2. Consider etiologies of fever in normal hosts and in special populations (e.g., patients with human immunodeficiency virus {HIV}, recent travel or immigration, intravenous drug use) 3. Obtain and present an age-appropriate patient history that helps differentiate among likely etiologies for fever 4. Understand when to obtain diagnostic and laboratory tests for fever.

		Approach to patient with weight loss (T-1)	1. Define pathologic unintended weight loss 2. List the most significant causes of pathologic weight loss 3. Be familiar with the diagnostic work up and evaluation of patients with weight loss
	HEMATOLOGY	History taking and physical examination of the Hematopoietic System (T-1)	1. Describe hematopoiesis and hematopoietic growth factors 2. Organize and prioritize a differential diagnosis based on specific physical historical and exam findings of a disorder of hematopoietic system
		Signs and symptoms of the hematopoietic system (T-1)	1. Identify the signs and symptoms of anemia 2. Describe the signs and symptoms of leukopenia 3. Explain the pathophysiology of thrombocytopenia
		Pathophysiology and Classification of Anemia (T-2)	1. Describe the approach to the anemia 2. Describe microcytic and hypochromic anemias 3. Describe the pathophysiology of hemolytic anemias
	ENDOCRINOLOGY	Thyroid function tests (T-1)	1. Explain the function of thyroid hormones 2. Describe the conditions which lead to abnormal thyroid hormone production 3. Interpret thyroid function tests
		Hypothyroidism - Hyperthyroidism (T-2)	1. Describe presenting symptoms and signs of hyperthyroidism and hypothyroidism 2. Describe pathogenesis of hyperthyroidism and hypothyroidism 3. Describe laboratory tests needed to diagnose hyperthyroidism and hypothyroidism
		History taking in Endocrinology (T-1)	1. Describe basic principles of endocrinology 2. Define neuroendocrine system, anterior and posterior pituitary gland 3. Describe polyglandular disorders 4. Describe the structure and components of the medical history of a patient with an endocrine system disorder
		Physical examination in Endocrinology (T-1)	1. Perform a physical examination of a patient with an endocrine system disorder 2. Use physical examination findings in diagnosis of endocrinological disorders
		Disorders of adrenal gland (T-1)	1. Describe the pathophysiology of glucocorticoid excess syndromes 2. Describe the pathophysiology of mineralocorticoid excess syndromes 3. Define the pathophysiology of glucocorticoid deficiency syndromes 4. Define the pathophysiology of mineralocorticoid deficiency syndromes 5. Explain adrenal medulla, catecholamines, and pheochromocytoma
		Signs and symptoms of diabetes mellitus (T-1)	1. Define the etiology and pathophysiology of type 1 diabetes mellitus 2. Define the etiology and pathophysiology of type 2 diabetes mellitus 3. Define the risk factors for diabetes mellitus 4. Identify the symptoms and clinical findings of diabetes mellitus 5. Interpretation of the laboratory and diagnostic studies for diabetes mellitus
		Acute metabolic complications of diabetes mellitus (T-1)	1. Define the pathophysiology and clinical findings of diabetic ketoacidosis 2. Define the pathophysiology and clinical findings of hyperosmotic hyperglycemic non-ketotic state

			3. Define the pathophysiology and clinical findings of hypoglycemia
		Chronic metabolic complications of diabetes mellitus (T-1)	1. Define the microvascular complications of diabetes mellitus; diabetic nephropathy, diabetic neuropathy, diabetic retinopathy. 2. Define the macrovascular complications of diabetes mellitus; coronary artery disease, cerebrovascular disease, peripheral artery disease
		Approach to being overweight and obesity (T-1)	1. Define the pathophysiology and classification of obesity 2. List the most common causes of weight gain 3. Define the metabolic syndrome 4. Evaluate a patient with obesity 5. Define the general approaches in treatment of obesity
		Approach to calcium and vitamin D metabolism disorders (T-1)	1. Describe the calcium and vitamin D metabolism 2. Describe the approach to a patient with hypercalcemia 3. Describe the approach to a patient with hypocalcemia 4. Describe the approach to a patient with vitamin D deficiency 5. Describe the approach to a patient with vitamin D intoxication
		Hormonal regulation of bone metabolism (T-1)	1. Define bone modeling and remodeling 2. Identify the effects of parathyroid hormone in bone metabolism 3. Identify the effects of vitamin D in bone metabolism 4. Identify the effects of calcitonin in bone metabolism 5. Identify the effects of estrogen in bone metabolism
	RHEUMATOLOGY	History taking and physical examination in Rheumatology (T-1)	1. Define the main symptoms in rheumatology 2. Learn the main questions for assessing the pain 3. Discriminate the origin of musculoskeletal pain 4. Evaluate the inflammation of the joints 5. Evaluate the findings of physical examination of other systems for rheumatological diseases 6. Learn the examination of peripheral joints and axial system
		Approach to musculoskeletal pain, articular and periarticular pain (T-1)	1. Describe the main characteristics of articular pain 2. Describe the main characteristics of periarticular pain 3. Discriminate articular and periarticular pain 4. Describe the main rheumatological diseases associated with articular and periarticular pain 5. Discriminate inflammatory and noninflammatory articular pain
		Approach to arthritis (T-1)	1. Define the main characteristics of arthritis 2. Explain the classification of arthritis according to the number of affected joints 3. Describe and evaluate the main causes of acute and chronic monoarthritis, 4. Describe and evaluate the main causes of acute and chronic oligoarthritis 5. Describe and evaluate the main causes of acute and chronic poliarthritis

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PULMONARY MEDICINE	History taking of the Respiratory System (T-1)	1. Describe the structure and components of the medical history of a patient with a respiratory system disorder
	Physical examination of the Respiratory System (T-1)	1. Describe the structure and components of the clinical examination of a patient with a respiratory system disorder (inspection, palpation, percussion, auscultation)
	Approach to a patient with dyspnea, cyanosis and cough (T-1)	1. Evaluate a patient with dyspnea, cyanosis and cough 2. Define the pathophysiology, diagnostic techniques, and the treatment approaches for these symptoms
	Approach to a patient with hemoptysis, wheezing (T-1)	1. Evaluate a patient with hemoptysis, wheezing 2. Define the pathophysiology, diagnostic techniques, and the treatment approaches for these symptoms

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CARDIOLOGY	History taking of Cardiovascular System (T-1)	1. Name all the routine questions that are involved in taking a history of the patient with cardiovascular disease 2. Explain why they are being asked. 3. Discuss targeted history taking for cardinal symptoms including chest pain, shortness of breath, palpitations, temporary loss of consciousness, edema, fatigue, exercise intolerance 4. Differentiate between history of chief complaint and past medical history
	Physical examination of Cardiovascular System (T-1)	1. Understand the basics of the cardiac, vascular and respiratory components of the physical exam 2. Explain each part of the physical examination of the cardiovascular system
	Approach to a patient with acute chest pain (T-1)	1. Identify the symptoms and signs of chest pain characteristics of angina pectoris 2. Categorize chest pain as angina pectoris, atypical angina, or non-cardiac chest pain 3. Organize and prioritize a differential diagnosis based on specific physical historical and exam findings 4. Order appropriate laboratory and diagnostic studies for the most likely etiologies of acute chest pain 5. Interpretation of ECG and Troponins in acute coronary syndromes 6. Recognize other life threatening causes of acute chest pain
	Approach to a patient with palpitation, presyncope/syncope (T-1)	1. Evaluate a patient with palpitation, presyncope/syncope 2. Define the pathophysiology, diagnostic techniques, and the treatment approaches for these symptoms