



COURSE UNIT (MODULE) DESCRIPTION

Course unit (module) title	Code
Propaedeutics of Internal Diseases (I)	

Academic staff	Core academic unit(s)
Coordinating: Assoc. Prof. Violeta Ožeraitienė; Other: Lecturers of the Internal Medicine and Family Medicine Clinic at the Institute of Clinical Medicine	Vilnius University Faculty of Medicine Institute of Clinical Medicine Department of Internal Diseases and Family Medicine

Study cycle	Type of the course unit
Integrated University Studies (stages I and II)	Compulsory

Mode of delivery	Semester or period when it is delivered	Language of instruction
Auditorium. Lectures and seminars in auditorium. Practice in training rooms and in Therapeutics divisions of hospitals (clinical examination of patients in wards)	II course, autumn semester, 3rd	Lithuanian, English

Requisites	
Prerequisites: Human Anatomy, Human Histology, Human Biology and Genetics, Biochemistry, Psychology, Basics of Professional Communication and Psychosomatics.	Co-requisites (if relevant):

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
3	81	40	41

Purpose of the course unit		
The goal is to develop student autonomy in conducting clinical examinations and to enhance analytical and critical thinking skills through the evaluation of clinical examination data, laboratory tests, and instrumental investigations. Additionally, it aims to develop the professional competence of future medical doctors in diagnosing internal disease syndromes and oncological conditions, as well as in formulating further investigation plans and treatment strategies.		
Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
Upon completion of the study program, graduates will be able to: 1. Professional Qualities 1.1. Act in compliance with ethical standards and apply principles of good medical practice in their work. They will demonstrate empathy, honesty, critical	Methods of active practical teaching and learning: During hospital practice, students develop communication and ethical principles by interacting with patients, hospital staff, and lecturers. They enhance their skills in effective	Continuous assessment of practical skills and theoretical knowledge through teacher-student interaction during clinical examinations of

<p>and self-critical thinking, creativity, initiative, and effective communication skills.</p> <p>By the end of this course, students will be able to adhere to medical ethics and deontological principles, think critically and self-critically, and apply creativity in their professional practice.</p> <p>.</p>	<p>communication with patients and colleagues. Additionally, students engage in preparing presentations, creating posters, and participating in discussions.</p> <p>Research methods: independent search for information, studying professional literature and course materials.</p>	<p>patients in hospital wards and colloquiums.</p>
<p>6. Assessment of Clinical Signs, Ordering Laboratory Tests and Investigations, Differential Diagnosis, and Development of a Monitoring Plan</p> <p>6.1. Recognize, assess, and describe disease manifestations, progression, and symptom severity; determine necessary tests and interpret their results.</p> <p>By the end of this course, students will be able to perform a systematic and comprehensive clinical examination of a patient. They will be proficient in structured history-taking and the practical application of physical examination methods, including inspection, palpation, percussion, auscultation, anthropometry, and thermometry. Additionally, students will demonstrate expert understanding of clinical data assessment and interpretation, diagnose key syndromes of internal diseases and pathological conditions, develop a patient investigation plan, and independently document a patient's case history.</p> <p>.</p>	<p>Lectures, seminars, practical training, and internship.</p> <p>Methods of active practical teaching and learning: Students develop hands-on skills in performing clinical examinations, analyzing, assessing, and summarizing clinical, laboratory, and instrumental examination data. Practical training begins in simulation classes and later continues in hospital wards. Learning activities include group discussions, interactive medical cases, and solving theoretical clinical scenarios (both long and short clinical cases).</p> <p>Research methods: Analysis of video tutorials on physical examination techniques, audio tutorials (e.g., cardiac and lung auscultation), independent study of course materials, review of professional literature, information search and evaluation. Students also engage in preparing presentations, posters, and e-learning materials.</p>	<p>Continuous assessment of practical skills and theoretical knowledge through teacher-student interaction during clinical examinations of patients in hospital wards and colloquiums.</p>
<p>10. Competent Communication in Medical Practice</p> <p>10.1. Communicate clearly, sensitively, and effectively with patients, colleagues, patient relatives, and individuals with disabilities.</p> <p>Students will develop the ability to communicate effectively with patients, enabling them to gather comprehensive information about the patient's health status.</p> <p>.</p>	<p>Methods of active practical teaching and learning: Students develop communication skills with patients during practical training in simulation classes and later in hospital wards. Learning activities include group discussions, interactive medical cases, and role-plays.</p> <p>Research methods: Educational training tests, clinical case analysis, independent study of course materials, and review of professional literature.</p>	<p>Continuous assessment of practical skills and theoretical knowledge through teacher-student interaction during clinical examinations of patients in hospital wards and colloquiums.</p> <p>.</p>
<p>11. Application of Ethical and Legal Principles in Medical Practice</p> <p>11.1. Maintain confidentiality, apply ethical principles in clinical practice, complete informed consent forms, and</p>	<p>Methods of active practical teaching and learning: Students develop communication skills with patients during practical training in simulation classes and later in hospital wards. Learning activities include group</p>	<p>Continuous assessment of practical skills and theoretical knowledge through teacher-student interaction during clinical examinations of patients in hospital wards and colloquiums.</p>

<p>adhere to national and European legislation in medical practice.</p> <p>By the end of this course, students will be able to apply ethical principles and ensure patient confidentiality while performing clinical examinations.</p>	<p>discussions, interactive medical cases, and role-plays.</p> <p>Research methods: Educational training tests, clinical case analysis, independent study of course materials, and review of professional literature.</p>	

Content	Contact hours							Individual work: time and assignments	
	Lectures	Tutorials	Seminars	Workshops	Laboratory work	Internship	Contact hours, total	Individual work	Tasks for individual work
<p>Framework and methods of clinical examination, including structured history taking (anamnesis), main patient complaints (pain, functional and morphological disturbances), past medical, family, and social-occupational histories, systemic review, physical examination techniques (inspection, palpation, percussion, auscultation), thermometry, anthropometry, body mass index calculation, and clinical assessment of findings.</p>	1		1	1			3	3	<p>Study of professional literature.</p> <p>Preparation for practical training and seminars on patient history taking and physical examination.</p>
<p>Clinical examination of a patient with a respiratory disease: structured history taking (anamnesis), inspection, palpation, percussion – comparative and topographic. Tactile vocal <i>fremitus</i>. Clinical assessment of findings. The techniques and methods of lung auscultation. Normal and abnormal breath sounds. Added (adventitious) sounds: rales or crackles, wheezes, crepitation, pleural rub. Clinical assessment of findings. Laboratory, functional and instrumental methods of investigation of respiratory system. The chest X-ray and CT scan in respiratory medicine. Bronchoscopy. Evaluation of laboratory analysis of sputum and pleural effusions, clinical findings assessment.</p>	1		2	2			5	5	<p>Review of relevant literature and preparation for the physical examination, as well as laboratory and instrumental investigations of the respiratory system in patients with respiratory diseases.</p>

Clinical examination of patients presenting with respiratory syndromes: consolidation, cavity, chronic airflow limitation, air leakage into pleural space, pleural effusion, obstruction, restriction, respiratory failure. General understanding of etiopathogenesis. Clinical symptoms and signs. Diagnostic criteria.			1	1			2	2	Review of relevant literature and preparation for practical training on respiratory syndromes and their clinical features, including listening to audio tutorials on normal, abnormal, and added breath sounds.
Clinical examination of patients presenting with endocrine diseases: structured history taking (anamnesis), inspection, and palpation of thyroid gland. Laboratory, biochemical, instrumental, imaging investigations, clinical assessment of findings. Clinical examination of patients presenting endocrinological system syndromes: Hypoglycaemia, hyperglycaemia, thyroid hyperfunction and hypofunction. General understanding of etiopathogenesis. Clinical symptoms and signs. Diagnostic criteria.			1	2			3	2	Review of literature and preparation for practical training on physical, laboratory, instrumental, and imaging investigations of patients with endocrine diseases, including diabetes mellitus and major thyroid disorders.
<i>Colloquium I in writing</i>			1				1	2	Preparation for the colloquium
Clinical examination of a patient with a cardiovascular disease: structured history taking (anamnesis), inspection, palpation of apex beat (point of maximum impulse) and precordial movements (parasternal heave, thrill). Percussion of the heart (relative and absolute heart dullness). Clinical assessment of the findings.			1	1			2	2	Review of relevant literature and preparation for practical training on the physical examination of patients with cardiovascular diseases.
Normal heart auscultation: listening sites, primary and additional heart tones, and their genesis. Pathological heart auscultation: abnormalities in heart tones, including changes in intensity, splitting, extra heart sounds, and additional sounds. Gallop rhythm: types, genesis, and clinical significance. Heart murmurs: genesis, classification, characteristics, and clinical assessment.			2	1			3	3	Review of relevant literature and preparation for practical training on the physical examination of patients with cardiovascular diseases.
Examination of pulse. Blood pressure (BP) measurement, blood-pressure categories according to clinical guidelines, interpretation of BP readings. Blood tests in cardiovascular diseases. Instrumental investigations: electrocardiography (ECG - standard, the exercise stress testing (veloergometry), Holter monitor test); echocardiography – transthoracic, transesophageal echocardiograms; coronarography.			1	1			2	2	Review of relevant literature and preparation for practical training on the physical examination of patients with cardiovascular diseases.

Conception and genesis of ECG, electrophysiology of impulses, the normal limits of the parameters of waves, intervals and segments on ECG. Main derivations. ECG analysis scheme: estimation of regular rhythm pacemaker, heart rate calculation, voltage, electrical axis of the heart and cardiac rotation (α angle detection).			1	1			2	2	Study of relevant literature. Preparation for practical training for normal ECG analysis.
Pathological ECG. Electrocardiographic signs and ethology of heart chambers enlargement and hypertrophy. ECG signs of heart rhythm disorders: sinus tachycardia, sinus bradycardia, premature complexes (ectopic beats), atrial fibrillation and flutter, paroxysmal tachycardia. Cardiac conduction disorders electrocardiographic characteristic: II, III degree atrioventricular blocks and His bundle branch blocks, I. ECG signs of myocardial ischaemia and infarction.			1	2			3	3	Study of relevant literature. Preparation for practical training on pathological ECG analysis.
Clinical examination of patients presenting with the main cardiovascular syndromes. Acute and chronic heart failure syndromes. Syncope. Arterial hypertension syndrome. General understanding of etiopathogenesis. Clinical symptoms and signs. Diagnostic criteria.			1	1			2	1	Study of relevant literature. Preparation for practical training about cardiovascular syndromes.
<i>Colloquium II in writing</i>			2				2	3	Preparation for the colloquium
9. Clinical examination of a patient presenting with gastrointestinal, pancreas diseases: structured history taking (anamnesis), inspection, palpation, percussion, auscultation of the abdomen. Laboratory and instrumental investigations in gastrointestinal, pancreatic diseases. Gastric acid secretion test. Analysis of faeces: macroscopic, microscopic, chemical, stool test, stool culture. Endoscopic, imaging, histomorphological investigations, clinical assessment of findings. Clinical examination of patients presenting with the main gastrointestinal bleeding, malabsorption and nutritional status. Acute abdominal syndrome. General understanding of etiopathogenesis. Clinical symptoms and signs. Diagnostic criteria.			1	2			3	3	Review of relevant literature and preparation for practical training on the patient with gastrointestinal and pancreas diseases. Preparation for practical training about the main gastrointestinal syndromes.
Clinical examination of a patient presenting with a hepatobiliary disease: structured history taking (anamnesis), inspection, palpation, percussion. Laboratory, biochemical, instrumental, imaging investigations, clinical assessment of findings. Clinical examination of patients presenting with			2	1			3	3	Review of relevant literature and preparation for practical training on the physical examination of patients with

the main liver syndromes: jaundice, portal hypertension, hepatic insufficiency. General understanding of etiopathogenesis. Clinical symptoms and signs. Diagnostic criteria.								hepatobiliary diseases. Preparation for practical training about the main hepatobiliary system syndromes.	
Clinical examination of patients presenting with kidney diseases: structured history taking (anamnesis), inspection, palpation, percussion. Laboratory, biochemical, instrumental, imaging investigations, clinical assessment of findings. Clinical examination of patients presenting with the main renal syndromes: acute and chronic renal failure, nephrotic and nephritic. General understanding of etiopathogenesis. Clinical symptoms and signs. Diagnostic criteria.			1	2			3	3	Review of relevant literature and preparation for practical training on the physical examination of patients with kidney diseases. Preparation for practical training about acute and chronic renal failure, nephrotic and nephritic syndromes.
<i>Colloquium III in writing. Credit test.</i>			1				1	2	Preparation for the colloquium and credit test.
Total	2		20	18			40	41	

Assessment strategy	Weight %	Deadline	Assessment criteria
<p>Assessment requirements</p> <p>Course of Propedeutics of Internal Diseases</p> <p>(PID):</p> <ul style="list-style-type: none"> 3 colloquiums; One ECG descriptive analysis. 			<p>The Propaedeutics of Internal Diseases course, offered in the 3rd semester, can be completed by earning credits. Credit requirements include obtaining a grade of at least 5 in all three colloquiums and in the ECG descriptive analysis.</p>
<p>Assessment methods</p> <p>Written Tests:</p> <ul style="list-style-type: none"> Multiple choice questionnaire (MCQ) 			<p>Assessment of Propaedeutics of Internal Diseases Colloquiums:</p> <p>The PID colloquium consists of a multiple-choice question (MCQ) test with 50 questions, each offering five answer choices. Each correct answer earns 0.2 points, and if all answers are correct for a single question, 1 point is awarded. The total maximum score for the test is 50 points, with a minimum passing score of 25 points. Evaluation is given with decimal precision.</p> <p>50 - 10 (excellent) 49 - 9,80 48,2 - 9,64 48 - 9,60... 26,2 - 5,24 26 - 5,2 25 - 5,00 (sufficient).</p>

Author (-s)	Publishing year	Title	Issue of a periodical or volume of a publication	Publishing house or web link
Required reading				
Douglas G., Nicol F., Robertson C.	2013	Macleod's Clinical Examination, 14th ed.	textbook	Churchill Livingstone Elsevier, Edinburgh.
Epstein O., Perkin D.G., de Bono D.P. & Cookson J.	2008	Clinical Examination, 4th ed.	textbook	Churchill Livingstone Elsevier, London.
Naudžiūnas A., Sadauskas S., Unikauskas A. ir kiti.	2019	Vidaus ligų diagnostikos pagrindai	textbook	Kaunas: Vitae Litera http://ebooks.vitaelitera.lt/
McGee S.	2017	Evidence based physical diagnosis, 4th ed.	e book	Elsevier https://www.clinicalkey.com
Recommended reading				
Danila E., Šatkauskas B.	2009	Klinikinė pulmonologija	book	Vilnius: UAB Vaistų Žinios
Irnias A., Kupčinskas L. ir kt.	2010	Klinikinė gastroenterologija	book	Vilnius: UAB Vaistų Žinios
Laucevičius A., Nemickas R., Petrulionienė Ž.	2008	Klinikinės kardiologijos pagrindai	book	Vilnius: UAB Vaistų Žinios
Miglinas M.	2003	Inkstų ligos	book	Vilnius, UAB „Vaistų žinios“
Sudaryt. G. Kazanavičius	2009	Endokrinologija	book	Kaunas, UAB „Vitae Litera“ http://ebooks.vitaelitera.lt/
Gleadal J.	2012	History and Clinical Examination at a Glance	book	Chichester: J. Wiley Blackwell
Bayes de Luna A.	2014	ECGs for beginners	e book	John Wiley & Sons, Inc. https://onlinelibrary.wiley.com
Kumar N, Law A, Choudhry NK.	2016	Teaching Rounds: A Visual Aid to Teaching Internal Medicine Pearls on the Wards	e book	McGraw-Hill Education http://accessmedicine.mhmedical.com
Dennis M, Bowen WT, Cho L, et al.	2020	Mechanisms of Clinical Signs, 2nd ed.	e- book	Elsevier Australia https://www.clinicalkey.com/student
Swartz MH	2021	Textbook of Physical Diagnosis: History and Examination, 8th ed.	e- book	Elsevier https://www.clinicalkey.com/
Talley NJ, O'Connor S	2022	Clinical Examination, 8th ed.	e- book	Elsevier https://www.clinicalkey.com
Penman, Ian D et al.	2023	Davidson's Principles and Practice of Medicine,	e-book	Elsevier https://www.clinicalkey.com
Alastair IJ, Dover AR, Fairhurst K	2024	Macleod's Clinical Examination, 15th ed	e- book	Elsevier https://www.clinicalkey.com

