



Syllabus for academic year: 2021/2022 Training cycle: 2018/2019 – 2023/2024													
Description of the course													
Course	Internal Medicine (1)								Group of detailed education results				
									Group code E	Group name Non-invasive clinical science			
Faculty	Faculty of Medicine												
Major	medicine												
Level of studies	<input checked="" type="checkbox"/> uniform magister studies <input type="checkbox"/> 1 st degree studies <input type="checkbox"/> 2 nd degree studies <input type="checkbox"/> 3 rd degree studies <input type="checkbox"/> postgraduate studies												
Form of studies	<input checked="" type="checkbox"/> full-time <input type="checkbox"/> part-time												
Year of studies	IV							Semester:	x winter x summer				
Type of course	<input checked="" type="checkbox"/> obligatory <input type="checkbox"/> limited choice <input type="checkbox"/> free choice / optional												
Language of study	<input type="checkbox"/> Polish <input checked="" type="checkbox"/> English												
Number of hours													
Form of education													
	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Foreign language Course (FLC)	Physical Education (PE)	Vocational Practice (VP)	Directed Self-Study (DSS)	E-learning (EL)
Winter semester:													
Dept. and Clinic of Internal Medicine, Occupational Diseases, Hypertension and Clinical Oncology													
Direct (contact) education ¹				20									
Distance learning ²	3												
Dept. and Clinic of Cardiology													
Direct (contact) education ¹				10									

¹ Education conducted with direct participation of university teachers or other academics

² Education with applied methods and techniques for distance learning



Distance learning ²	3																		
Dept. and Clinic of Nephrology and Transplantation Medicine																			
Direct (contact) education ¹				0															
Distance learning ²	3																		
Dept. and Clinic of Pulmonology and Lung Cancers																			
Direct (contact) education ¹				0															
Distance learning ²	3																		
Dept. and Clinic of Rheumatology and Internal Medicine																			
Direct (contact) education ¹				0															
Distance learning ²	3																		
Summer semester:																			
Dept. and Clinic of Internal Medicine, Occupational Diseases, Hypertension and Clinical Oncology																			
Direct (contact) education ¹				20															
Distance learning ²	3																		
Dept. and Clinic of Cardiology																			
Direct (contact) education ¹				15															
Distance learning ²	3																		
Dept. and Clinic of Nephrology and Transplantation Medicine																			
Direct (contact) education ¹				0															
Distance learning ²	3																		
Dept. and Clinic of Pulmonology and Lung																			
Direct (contact) education ¹				0															
Distance learning ²	3																		
Dept. and Clinic of Rheumatology and Internal																			
Direct (contact) education ¹				0															
Distance learning ²	3																		
TOTAL per year:																			



	30			65									
Direct (contact) education				65									
Distance learning	30												

Educational objectives (max. 6 items)

- C1 Student should get acquainted with etiopathogenesis, symptomatology, diagnosis and treatment of internal diseases (cardiovascular diseases, pulmonary diseases, kidney diseases, rheumatic diseases).
 C2 Student should get acquainted with keeping medical records.
 C3 Student should get skills of history taking, an accurate physical examination with proper interpretation of disclosed abnormalities.
 C4 Student should get acquainted with basic laboratory tests and diagnostic procedures, including imaging examinations and the interpretation of disclosed abnormalities in common disease entities.
 C5 Student should get skills of differential diagnosis, performing basic diagnostic examinations, as well as the establishment of diagnosis and treatment plan in common internal diseases.
 C6 Student should develop social competences needed to practice the medical profession, in accordance with graduate's profile.

Education result for course in relation to verification methods of the intended education result and the type of class:

Number of detailed education result	Student who completes the course knows/is able to	Methods of verification of intended education results	Form of didactic class <i>*enter the abbreviation</i>
E.W1	define epidemiology of the most common internal diseases	test/oral answer	L, CC
E.W7	describe etiology, symptomatology, diagnostic and therapeutic procedures in cardiovascular, pulmonary, kidney, and rheumatic diseases		
E.W40	present the theoretical and practical basis of laboratory diagnostics		
E.W41	understand the possibilities and limitations of laboratory tests in emergencies		
E.U1	take clinical interview	direct observation of clinical skills	CC
E.U3	perform a thorough and accurate physical examination		
E.U13	assess and describes psychosomatic state of a patient		
E.U14	recognize life-threatening conditions		
E.U16	plan diagnostic and therapeutic procedures in the most common diseases in adults	direct observation of planning the procedures	
E.U24	interpret the results of laboratory findings	verification of interpreting laboratory findings	
E.U29	perform basic medical procedures	direct observation of clinical skills	

* L- lecture; SE- seminar; AC- auditorium classes; MC- major classes (non-clinical); CC- clinical classes; LC- laboratory classes; CSC- classes in simulated conditions; PCP- practical classes with patient; FLC- foreign language course; PE- physical education; VP- vocational practice; DSS- directed self-study; EL- E-learning

Student's amount of work (balance of ECTS points):

Student's workload (class participation, activity, preparation, etc.)	Student Workload
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1. Number of hours of direct contact:	65
2. Number of hours of distance learning:	30
3. Number of hours of student's own work:	32,5
4. Number of hours of directed self-study	n/a
Total student's workload	127,5
ECTS points for course	4,0
Content of classes: (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)	
<p>Lectures Lectures 30 hours Dept. and Clinic of Internal Medicine, Occupational Diseases, Hypertension and Clinical Oncology <u>Winter semester – 3 hours</u> The emergencies in internal and occupational diseases Secondary and hormonal induced hypertension <u>Summer semester – 3 hours</u> Hypertension in pregnancy Environmental and demographic threats in XXI century</p> <p>Dept. and Clinic of Cardiology <u>Winter semester – 3 hours</u> Cardiogenic shock Atrial fibrillation <u>Summer semester – 3 hours</u> Invasive diagnostics and intervention treatment Valvular heart disease</p> <p>Dept. and Clinic of Nephrology and Transplantation Medicine <u>Winter semester – 3 hours</u> Glomerulonephritis – diagnosis and therapy Diabetic kidney disease, interstitial nephritis, urinary tract infection and drug-induced nephropathy <u>Summer semester – 3 hours</u> Renal replacement therapy – peritoneal dialysis, hemodialysis, kidney transplantation Acute and chronic kidney disease</p> <p>Dept. and Clinic of Pulmonology and Lung Cancers <u>Winter semester – 3 hours</u> Dyspnea and respiratory insufficiency Chest pain and pleural effusion <u>Summer semester – 3 hours</u> Cough and pneumonia Daytime sleepiness and sleep breathing disorders</p> <p>Dept. and Clinic of Rheumatology and Internal Disease <u>Winter semester – 3 hours</u> Systemic connective tissue diseases; rheumatoid arthritis, systemic lupus erythematosus, systemic sclerosis, polymyositis, mixed connective tissue disease – pathogenesis, clinical picture, diagnostics, treatment <u>Summer semester – 3 hours</u> Seronegative spondyloarthropathies</p>	
Seminars N/A	
Classes 65 hours	



Dept. and Clinic of Internal Medicine, Occupational Diseases, Hypertension and Clinical Oncology

Winter semester – 20 hours

- Assessment of the cardiovascular risk. ABPM – ambulatory blood pressure monitoring and its interpretation
- Basic laboratory tests and diagnostic imaging in hypertension. The assessment of target organ damage of hypertension. Advanced hormonal and invasive diagnostics performed in patients with resistant hypertension
- Rules of conduct in specific therapeutic groups of patients with hypertension (metabolic syndrome, diabetes, stroke, pregnancy, old age, chronic kidney disease)
- Rules for selection of drugs, depending on the profile of the patient – causal treatment
- Individualization of pharmacotherapy in accordance with the principles of EBM
- Hypertensive emergencies
- A patient with refractory/resistant hypertension – causes, diagnosis and treatment (with special concentration on OSA and polysomnography)
- Stroke. Assessment of the patient's consciousness by the NIHSS and Glasgow Coma Scale.
- DIC – principles of diagnosis and treatment, haemorrhagic diathesis, including iatrogenic – overdose of anticoagulants, bleeding in a patient treated with anticoagulant
- Respiratory and metabolic acidosis. Respiratory and metabolic alkalosis. Compensatory mechanisms. The principles of diagnosis, interpretation and therapy
- Emergencies in metabolic disorders – principles of diagnostic and therapeutic procedures

Summer semester – 20 hours

- Decompensated heart failure, diagnostics, risk factors for decompensation, hemodynamic classification, principles of pharmacotherapy
- Patient with dyspnoea, patient with tachyarrhythmia – algorithms and differential diagnosis
- Patient with fainting – diagnostic imaging, differentiation (vasovagal, neurogenic; arrhythmias, tachy-brady)
- Patient with loss of consciousness, patient with symptoms of shock
- Deep vein thrombosis. Pulmonary thromboembolism – diagnosis of conditions predisposing to thrombosis, principle of diagnosis, therapeutic procedures
- COPD exacerbation, exacerbation of asthma, pneumonia. Acute respiratory failure, sepsis – algorithms
- Patient with fever of unknown origin
- Dehydration and overhydration. Hyponatremia, hyperemia, hyperkalemia, hypokalemia, hypocalcemia, hypercalcemia. Hypophosphatemia
- Patient with cachexia (iatrogenic and in oncology) – principles of prophylaxis and therapy

Dept. and Clinic of Cardiology

Winter semester – 10 hours

- Basic diagnostic methods used in modern cardiology: laboratory tests, electrocardiography, imaging tests
- Chronic coronary syndromes – pathophysiology, diagnostic and therapeutic procedures, invasive treatment and pharmacotherapy
- Acute coronary syndromes – pathophysiology, diagnostic and therapeutic procedures, invasive treatment and pharmacotherapy
- Supraventricular arrhythmias – pathophysiology, diagnostic and therapeutic procedures, invasive treatment and pharmacotherapy
- Atrial fibrillation - pathophysiology, diagnostic and therapeutic procedures, invasive treatment and pharmacotherapy



Summer semester – 15 hours

- Ventricular arrhythmias – pathophysiology, diagnostic and therapeutic procedures, invasive treatment and pharmacotherapy
- Basics of electrotherapy – pacemaker, implantable cardioverter-defibrillator, resynchronization system, invasive electrophysiological examination, ablation
- Chronic heart failure – pathophysiology, diagnostics, diagnostic and therapeutic procedures, pharmacotherapy

Acute heart failure – pathophysiology, diagnostics, diagnostic and therapeutic procedures, pharmacotherapy

Other

N/A

Basic literature (list according to importance, no more than 3 items)

1. Harrison's Principles of Internal Medicine. D Kasper et al. McGraw-Hill Medical 2018; 20th Edition
2. Davidson's Principles and Practice of Medicine. Stuart H. Ralston, Ian Penman, Mark Stachan, Richard Hobson, Elsevier 2018, 23rd Edition
3. Macleod's Clinical Examination. J. Alastair Innes, Anna R Dover, Karen Fairhurst. Elsevier 2018, 14th Edition

Additional literature and other materials (no more than 3 items)

1. Kaplan's Clinical Hypertension. NM Kaplan, RG Victor MD, Lippincott Williams & Wilkins 2009, 10th edition
2. ESC Guidelines (<https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines>)
3. Annals of the Rheumatic Diseases /medical journal/

Preliminary conditions: (minimum requirements to be met by the student before starting the course)

Student should know the basics of anatomy, physiology, pathophysiology and pathomorphology, as well as the basics of propedeutics of internal diseases.

Conditions to receive credit for the course:

Attendance at lectures and clinical classes, clinical skills, positive results of the test, and/or oral evaluation (grade) in the direct or online contact.

Each absence must be made up, including rector's days or dean's hours.

Grade:	Criteria for courses ending with a grade ³
Very Good (5.0)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of internal diseases is estimated at 92%. The student interprets medical research, makes a diagnosis, suggests treatment very well.
Good Above (4.5)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of internal diseases is estimated at 84%. The student interprets medical research, makes a diagnosis, suggests treatment above well.
Good (4.0)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of internal diseases is estimated at 76%. The student interprets medical research, makes a diagnosis, suggests treatment well.
Satisfactory Plus (3.5)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of internal diseases is estimated at 68%. The student interprets medical research, makes a diagnosis, suggests treatment fairly well.
Satisfactory (3.0)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of internal diseases is estimated at 60%. The student interprets medical research, makes a diagnosis, suggests treatment sufficiently.
	Criteria for courses ending with a credit³
Credit	

³ The verification must cover all education results, which are realized in all form of classes within the course



Department in charge of the course:	Dept. and Clinic of Internal Medicine, Occupational Diseases, Hypertension and Clinical Oncology
Department address:	Borowska 213, 50-556 Wrocław
Telephone:	71 736 40 00
E-Mail:	kcj@usk.wroc.pl

Person in charge for the course:	Anna Jodkowska, MD, PhD
Telephone:	71 736 40 00
E-Mail:	anna.jodkowska@umed.wroc.pl

List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Arkadiusz Derkacz	Professor, MD, PhD	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Anna Skoczyńska	Professor, MD, PhD	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Adrian Doroszko	MD, PhD, Assoc. Prof.	Medical sciences	Physician, academic teacher	Clinical classes
Anna Jodkowska	MD, PhD	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Helena Martynowicz	MD, PhD	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Maciej Podgórski	MD	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Jacek Polański	MD	Medical sciences	Physician, academic teacher	Clinical classes
Tomasz Matys	MD	Medical sciences	Physician, academic teacher	Clinical classes
Damian Gajecki	MD	Medical sciences	Physician, academic teacher	Clinical classes
Jakub Gawryś	MD	Medical sciences	Physician, academic teacher	Clinical classes
Jakub Mochol	MD	Medical sciences	Physician, academic teacher	Clinical classes

Department in charge of the course:	Dept. and Clinic of Cardiology
Department address:	Borowska 213, 50-556 Wrocław
Telephone:	71 736 42 00
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Person in charge for the course:		Prof. Andrzej Mysiak, MD, PhD		
Telephone:		71 736 42 00		
E-Mail:		kardiologia@umed.wroc.pl		
List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Wiktor Kuliczowski	MD, PhD, Assoc. Prof.	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Marcin Protasiewicz	MD, PhD, Assoc. Prof.	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Tomasz Witkowski	MD, PhD, Assoc. Prof.	Medical sciences	Physician, academic teacher	Lectures, clinical classes
Konrad Kaaz	MD, PhD	Medical sciences	Physician, academic teacher	Clinical classes
Małgorzata Kobusiak-Prokopowicz	MD, PhD	Medical sciences	Physician, academic teacher	Clinical classes
Magdalena Cielecka-Prynda	MD, PhD candidate	Medical sciences	Physician, academic teacher	Clinical classes
Dawid Bednarczyk	MD, PhD candidate	Medical sciences	Physician, academic teacher	Clinical classes
Maciej Kabaj	MD, PhD candidate	Medical sciences	Physician, academic teacher	Clinical classes
Wojciech Kosowski	MD, PhD candidate	Medical sciences	Physician, academic teacher	Clinical classes

Department in charge of the course:	Dept. and Clinic of Nephrology and Transplantation Medicine
Department address:	Borowska 213, 50-556 Wrocław
Telephone:	71 733 25 00
E-Mail:	nefrologia@umed.wroc.pl

Person in charge for the course:		Prof. Magdalena Krajewska, MD, PhD		
Telephone:		71 733 25 00		
E-Mail:		nefrologia@umed.wroc.pl		
List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Magdalena Krajewska	Professor, MD, PhD	Medical sciences	Physician, academic teacher	Lectures

Department in charge of the course:	Dept. and Clinic of Pulmonology and Lung Cancers
Department address:	Grabieżyńska 105, 53-439 Wrocław
Telephone:	71 334 95 59
E-Mail:	pulmonologia.klinika@umed.wroc.pl

Person in charge for the course:		Assoc. Prof. Monika Kosacka, MD PhD		
Telephone:		71 334 95 59		
E-Mail:		monika.kosacka@umed.wroc.pl		
List of persons conducting specific classes:				



Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Anna Brzecka	MD, PhD, Professor WMU	Medical sciences	Physician, academic teacher	Lectures

Department in charge of the course:	Dept. and Clinic of Rheumatology and Internal Disease
Department address:	Borowska 213, 50-556 Wrocław
Telephone:	71 734 33 00
E-Mail:	sekreum@reum.umed.wroc.pl

Person in charge for the course:	Prof. Piotr Wiland, MD, PhD
Telephone:	71 734 33 00
E-Mail:	sekreum@reum.umed.wroc.pl

List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Piotr Wiland	Professor, MD, PhD	Medical sciences	Physician, academic teacher	Lectures
Jerzy Świerkot	Professor, MD, PhD	Medical sciences	Physician, academic teacher	Lectures

Date of Syllabus development

.....13.09.2021.....

Syllabus developed by

Tomasz Witkowski, MD, PhD..

Signature of Head(s) of teaching unit(s)

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Dean's signature

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