







Department and Clinic of Rheumatology and Internal Medicine					0													
Department and Clinic of Pulmonology and Lung Cancers					15													
Department and Clinic of Angiology, Hypertension and Diabetology					0													
<b>TOTAL per year:</b>																		
					240													
<p><b>Educational objectives (max. 6 items)</b></p> <p>C1 Student should get acquainted with etiopathogenesis, symptomatology, and treatment of internal diseases (pulmonary diseases, heart, kidney, vascular diseases and endocrinological diseases).</p> <p>C2 Knowledge of preventive measures against pulmonary diseases, kidney diseases, cardiovascular diseases, and endocrinological.</p> <p>C3 Student should get acquainted with keeping medical records.</p> <p>C4 Student should get skills of history taking, an accurate physical examination with proper interpretation of disclosed abnormalities.</p> <p>C5 Student should get acquainted with basic laboratory tests and diagnostic procedures, including imaging examinations, and the interpretation of disclosed abnormalities in common disease entities.</p> <p>C6 Student should get skills of differential diagnosis, performing basic diagnostic examinations, as well as the establishment of diagnosis and treatment plan in common diseases in internal medicine.</p>																		
<b>Education result matrix for module/course in relation to verification methods of the intended education result and the type of class</b>																		
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to									Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>						
<b>W01</b>	<b>E.W7</b>	Student describes and understands causes, symptoms, methods of diagnosis for the most common internal diseases, including pulmonary diseases, endocrinological, cardiovascular and renal diseases.									Credit test or oral answer analysis of clinical cases	CC						



<b>W02</b>	<b>E.W23</b>	Student describes epidemiological and environmental conditions for the most common cancers	Credit test or oral answer analysis of clinical cases	CC
<b>W 03</b>	<b>E.W1</b>	Student describes etiopathogenesis, including genetic and epidemiological determinants of most common internal diseases	Credit test or oral answer analysis of clinical cases	CC
<b>W04</b>	<b>E.W40</b>	Student knows the theoretical and practical basics of laboratory tests in internal diseases	Credit test or oral answer analysis of clinical cases	CC
<b>W05</b>	<b>E.W39</b>	knows the types of biological materials used in laboratory diagnostics and the principles of sampling for testing	Credit test or oral answer analysis of clinical cases	CC
<b>W06</b>	<b>E.W42</b>	lists indications for the implementation of monitored therapy	Credit test or oral answer analysis of clinical cases	CC
<b>U 01</b>	<b>E.U1</b>	Student takes clinical interview.	Direct observation of medical skills	CC
<b>U 02</b>	<b>E.U3</b>	Student performs a thorough and accurate physical examination.	Direct observation of medical skills	CC
<b>U 03</b>	<b>E,U14</b>	Student recognizes life-threatening conditions in internal medicine	Direct observation of medical skills	CC
<b>U 04</b>	<b>E.U29</b>	Student performs the basic procedures: spirometry or pulsoxymetry,	Direct observation of medical skills	CC
<b>U05</b>	<b>E.U30</b>	Student assists in some procedures like thin needle biopsy, pleural drainage	Direct observation of medical skills	CC
<b>U06</b>	<b>EU16</b>	Student plans diagnostic and therapeutic procedures for the most common internal diseases	Direct observation of medical skills	CC
<b>U07</b>	<b>E.U24</b>	Student interprets the results of laboratory tests in internal diseases(what the results means)	Direct observation of medical skills	CC
<b>U07</b>	<b>E.U12</b>	performs differential diagnosis of the most common diseases of adults	Direct observation of medical skills	CC
<b>** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical</b>				



classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning .

Please mark on scale 1-5 how the above effects place your classes in the following categories:  
communication of knowledge, skills or forming attitudes:

Knowledge: 5

Skills: 5

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

Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
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1. Contact hours:	240
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2. Student's own work (self-study):	234
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Total student's workload	474
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<b>ECTS points for module/course</b>	16,0
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Comments

**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)

**Lectures- non applicable**

**Seminars-non applicable**

**Clinical classes:**

**1. Department and Clinic of Endocrinology, Diabetology and Isotope Therapy**

**Clinical classes -winter semester (20 hrs)**

**1. Hyperthyroidisms** – pathophysiology, clinical signs and symptoms, physical examination, examination of the thyroid gland, interpretation of the laboratory results, differential diagnosis, diseases causing hyperthyroidism, algorithm of management. **Orbitopathy** – classification, signs and symptoms, treatment. Radioiodine treatment in thyroid diseases - indications and contraindications. **Thyroid storm** – diagnosis and treatment.

**Hypothyroidisms, thyroiditis:** etiology and pathophysiology, classification, clinical signs and symptoms, differential diagnosis, rudiments of treatment. **Hypometabolic storm.**

**Diffuse and nodular goiter:** definition, epidemiology, clinical characteristics, diagnostic procedures, management, iodine prophylaxis. **Ultrasonography of thyroid gland.**

**Thyroid cancer:** prevalence, etiology and pathogenesis, risk factors, classification, clinical characteristics, diagnosis, differential diagnosis and treatment. **Fine needle aspiration biopsy** – indications, contraindications, advantages and disadvantages, Bethesda classification of thyroid cytology. Indications for surgical treatment in thyroid diseases.

**2. Disorders of calcium and phosphate metabolism: Hypocalcemia and hypercalcemia, primary and secondary hyperparathyroidism, hypoparathyroidism** - etiology, pathogenesis, clinical symptoms. Physical examination. Principles of laboratory tests and imaging. Differential diagnosis, therapeutic options – indications for surgery, non-surgical approaches. Approach to hyper- and hypocalcemia. **Hypercalcemic crisis.**

**3. Glucose metabolism disorders. Diabetes mellitus:** : epidemiology, pathogenesis, signs and



symptoms, diagnostic criteria (Fasting glucose, Oral glucose tolerance test, protein C). Diabetes type 1 and type 2. Diagnostic algorithm, insulin secretory pattern in healthy individuals and diabetics. Options for diabetic treatment: principles of insulin therapy, oral hypoglycemic agents. Algorithm of therapy with antidiabetic agents in type 2 diabetes mellitus. Goals of insulin treatment. Outcome measures to assess diabetes management. **Diabetic complications: hypoglycaemia, diabetic ketoacidosis, hyperosmolar hyperglycemic state** – treatment algorithms.

#### **Clinical classes-summer semester (25 hrs)**

**1. Disorders of adrenal glands:** pathogenesis and etiology, signs and symptoms of hypercortisolaemia and insufficiency of adrenal glands, physical examination, principles of diagnosis (interpretation of laboratory assays, imaging diagnostics), differential diagnosis. Treatment options in case of hypercortisolaemia and adrenal gland insufficiency.

**Carcinoma of adrenal gland** –Diagnosis and treatment procedures.

**Adrenal crisis** – diagnosis and treatment.

**Hypertension due to endocrine disorders:** pheochromocytoma, oral contraceptives, hypercortisolaemia, hyperaldosteronism – signs and symptoms, diagnostic and therapeutic algorithms. Aldosterone to renin ratio as a tool in the diagnosis of hypertension. Differential diagnosis.

**2. Disorders of hypothalamic-pituitary unit:** signs and symptoms, physical examination, principles of diagnosis. Clinical presentation of pituitary gland tumors - acromegaly, hyperprolactinemia, panhypopituitarism and diabetes insipidus: signs and symptoms, diagnosis and differential diagnosis, interpretation of hormonal tests. Methods of treatment. Presentation of clinical cases.

**3. Menstrual irregularities:** etiology, clinical presentation, interpretation of laboratory tests and imaging, differential diagnosis (diagnostic algorithms). Methods of treatment. **Endocrinology of male reproduction** – hypogonadotropic and hypergonadotropic hypogonadism, andropause – signs and symptoms, etiology, physical examination, diagnosis and therapy. Gynecomastia – causes, differential diagnosis and treatment. Age-related changes in the male reproductive axis – treatment options.

**Endocrine diseases and pregnancy:** thyroid dysfunction in the pregnant patient – diagnosis and therapy. Gestational diabetes mellitus – diagnosis and treatment.

#### **2. Department and Clinic of Hematology, Blood Neoplasm and Bone Marrow Transplantation**

##### **Practical classes – winter semester (20 hrs)**

Class 1: Consultation hematology part 1 - interpretation of test results (morphology, automatic smear, manual smear, basic coagulation results). Subject and physical examination in hematology. Oncological vigilance - early symptoms of cancer in hematology

Classes 2: Consultation hematology part 2 - hematological problems most frequently appearing in the practice of primary care physician / internist: anemia, leukopenia, thrombocytopenia, lymphadenopathy, splenomegaly.

Classes 3: Classes in the simulation center. Basic diagnostic tools used in hematology (a few words about cytometry, genetic tests). Bone aspiration biopsy, trepanobiopsy, lumbar puncture. Emergencies 1. - febrile neutropenia, thrombocytopenia, acquired hemophilia. Seminar from other emergencies. Credit for the subjects of the winter semester.

##### **Practical classes – summer semester (25 hrs)**

Class 4: Myelodysplastic syndromes. Acute and chronic myeloproliferative neoplasms.



Class 5: Chronic lymphoproliferative neoplasms. Multiple myeloma.

Class 6: Acute lymphoblastic leukemia, lymphoblastic lymphoma. Anticancer and supportive therapy used in hematology. The role of clinical research in hematology.

Class 7: Coagulation disorders. Credits from the subjects of the summer semester.

### **3. Department of Heart Diseases**

**Practical classes – winter semester (20 hrs)**

**Practical classes – summer semester (5 hrs)**

1. Electrophysiology study, Holter ECG. PM + CRT + ICD. Prevention of cardiovascular diseases. Test.
2. Chronic heart failure. Cardiopulmonary exercise test. Heart transplantation.
3. Acute heart failure (including pulmonary oedema, cardiogenic shock, right ventricular failure, hyperkinetic heart failure)
4. Infective endocarditis. Pericarditis. Cardiac tamponade
5. Pulmonary embolism and vein thrombosis. Prophylaxis of arterial and venous thrombotic events.
6. Pulmonary hypertension. Congenital heart diseases. Cardiac tumours.

### **4. Department and Clinic of Nephrology and Transplantation Medicine**

**Clinical classes-winter semester (20 hrs-3 classes 6.66 h)**

1. A practical approach to a patient with suspected kidney disease. Main complaints and symptoms of kidney problems. Assessment of renal function in basic laboratory and imaging tests. Usefulness of determination and calculation of GFR glomerular filtration. Epidemiology of kidney diseases. Kidney disease as a social problem. Causes of increased incidence of kidney disease. Definition of chronic kidney disease and its stages. Clinical symptom syndromes: nephrotic and nephritic syndrome, subnephrotic proteinuria, hypertension, acute kidney damage.
2. Acute and chronic glomerulonephritis (GN) - causes, involvement of the immune system in the pathogenesis of GN. Nephrotic syndrome, nephritic syndrome, indications for kidney biopsy. Histopathological forms of GN. Principles of glomerulonephritis therapy.
3. Chronic kidney disease - staging, symptoms, treatment. Possibilities to slow down the progression of renal failure (ACEI, ARB, control of lipid disorders and limit salt intake, treatment of anemia). The role of cardiovascular disorders in renal failure. Cardiorenal syndrome.

**Clinical classes-summer semester (25 hrs-4 classes 6,25)**

1. Sudden deterioration of kidney function. Acute kidney injury - prerenal, renal, and postrenal cause. Differential diagnosis of renal failure: chronic and acute disorders, intoxication, injuries, obstructive uropathy. Acute renal failure developed during hospital treatment: nephrotoxic drugs, contrast nephropathy, infections, fluid and electrolyte disorders. Iatrogenic kidney damage. Kidney involvement in shock, sepsis and heart disease.
2. Interstitial nephritis. Urinary tract infections, diagnostics, principles of therapy. Kidney stones, metabolic predisposition and factors favoring the formation of deposits. Cystic kidney disease. Nephrotoxic drugs. Contrast nephropathy. Kidney tumors.
3. Etiology and pathophysiology of hypertension in renal diseases. Ischemic and hypertensive nephropathy. Renal and vascular renal hypertension. Kidney involvement in the course of immunological diseases, diabetes and cancer. Kidney disease in pregnancy. Pregnancy in a patient with chronic kidney disease.



4. Chronic renal failure, complications, treatment. Reversible factors in renal failure. The importance of cardiovascular disorders in advanced stages of renal failure. Renal replacement therapy (RRT): dialysis (peritoneal dialysis, hemodialysis), kidney transplantation. Vascular access. Pre-emptive and live donor transplantation. Indications for renal replacement therapy, aims and rules of RRT, complications, prognosis. Frailty syndrome.

#### **5. Department and Clinic of Rheumatology and Internal Medicine:**

##### **Clinical classes -winter semester (28 hrs)**

##### **Clinical classes-summer semester (0hrs)**

1. Rheumatoid arthritis - pathogenesis, clinical picture, diagnosis, treatment.
2. Synthetic modifying drugs (DMARD) and biological drugs used in the treatment of rheumatic diseases.
3. Systemic lupus erythematosus, systemic sclerosis, polymyositis, mixed connective tissue disease
4. Systemic vasculitis-division of pathogenesis, clinical picture, diagnosis and treatment.
5. The role of imaging tests in the diagnosis of selected rheumatic diseases.
6. Differential diagnosis of rheumatic diseases.

#### **6. Department and Clinic of Pulmonology and Lung Cancers:**

##### **Clinical classes -winter semester (12 hrs)**

1. Pulmonary symptoms. Diagnostic studies in pulmonology-spirometry (understand the reason PFTs are performed, basic interpretation of spirometry, know the difference between obstructive and restrictive lung disease, know how pulmonary function tests (PFT) are clinically applied. Body plethysmography, diffusing capacity, bronchial challenge testing, pulse oximetry. The role of radiological imaging in pulmonary diagnosis (chest X-ray, CT scans, PET CT). Bronchial asthma.
2. COPD: risk factors, prevention, symptoms, diagnosis.
3. Lung cancer epidemiology, risk factors, symptoms, diagnostic algorithm, histological types of lung cancer, determine the severity of the disease.
4. Infections the respiratory system: the most common respiratory infections, symptoms, diagnostic tests, indications for hospitalization.
5. Sleep breathing disorders. Types of apnea and methods of recognition.

##### **Clinical classes-summer semester (15 hrs)**

1. Interstitial lung diseases (ILD)-What causes ILD?. What are the symptoms of ILD. Complications of ILD (pulmonary hypertension, cor pulmonale, respiratory insufficiency), How is ILD diagnosed? Treatment of ILD. Sarcoidosis.
2. Pleural diseases. Approach to patients with pleural effusion. Pleurisy, pleural transudation, hemothorax, chylothorax. Performing of pleural thoracentesis and evaluation of ultrasound. Complications of thoracentesis: pneumothorax, infection, hemothorax, vasovagal reaction with bradycardia and hypotension. Pleural fluid analysis. Etiology and differentiation between transudative and exudative pleural effusions. Fibrosis of the pleura. Calcification of the pleura. Etiology, symptoms





and signs.

3. Procedures in acute states in pulmonology. Etiology and diagnosis of hemoptysis. Causes of dyspnea and chest pain. Pulmonary embolization. Acute respiratory failure. Blood gases analysis.

4. The differential diagnosis of the major lung diseases. Planning diagnostic procedure. Learning individual choice therapy in pulmonary diseases, including infectious diseases, lung cancer and sleep apnea syndrome - in accordance with applicable guidelines, but taking into account the specific situations as ineffective or contraindicated for the treatment of a standard. Non-invasive mechanical ventilation and oxygen therapy principles.

5. Tuberculosis-epidemiology, clinical picture and treatment.

### **7. Department of Angiology, Hypertension and Diabetology**

**Practical classes – winter semester (25 hrs)**

**Practical classes – winter semester (0 hrs)**

1.

Extracranial carotid and vertebral artery disease: etiology, clinical picture, diagnosis and treatment.

Vascular compression disorders:

- subclavian steal syndrome
- popliteal artery entrapment syndrome
- nutcracker syndrome

Thoracic outlet syndrome: pathogenesis, differential diagnosis, treatment.

2.

Life threatening states in vascular diseases

- aortic dissection
- aortic aneurysm
- acute lower limb ischemia
- venous thromboembolism

3.

Vasculitis:

- Takayasu's arteritis
- Thromboangiitis obliterans (Buerger's disease)
- Giant-cell arteritis

Secondary hypertension in the course of renal artery stenosis. Renal artery angioplasty: indications, contraindications

Congenital vascular malformations.

Thrombophilia: definition, diagnosis

4.

Diseases of the lymphatic system

Principles of compression therapy

Superior vena cava syndrome

Final test



**Basic (mandatory literature):**

1. Harrison's Principles of Internal Medicine, 20<sup>th</sup> Edition J. Larry Jameson, Anthony S. Fauci, Dennis L. Kasper, Stephen L. Hauser, Dan L. Longo, Joseph Loscalzo; : McGraw-Hill Education – Europe: 2018 ISBN13 (EAN): 9781259644030
2. Gerd Herold „Internal Medicine” Publisher: lulu. com; First English Edition 2011.
3. Macleod’s Clinical Examination. Graham Douglas, Fiona Nicol, Colin Robertson. Edition 13th, 2013.

**Additional literature and other materials :**

Endocrinology:

1. Williams Textbook of Endocrinology Shlomo Melmed, Kenneth S. Polonsky, P. Reed Larsen, Henry M. Kronenberg Elsevier - Health Sciences Division 2016 ISBN13 (EAN): 9780323297387
  1. Greenspan’s basic and clinical endocrinology
  2. Williams Textbook of Endocrinology
  3. website: [www.endotext.org](http://www.endotext.org)

Hematology:

1. Williams Manual of Hematology, 9th Edition. Marshall A. Lichtman. McGraw-Hill Medical, 2016. ISBN13 (EAN): 9781259642470

Cardiology:

1. Guidelines of European Society of Cardiology ([www.escardio.org](http://www.escardio.org))
2. Braunwald’s Heart Disease. A Textbook of Cardiovascular Medicine. 11th Edition. Elsevier, 2019.

Reumatology

Annals of the Rheumatic Diseases, medical journal

Pulmonology:

1. <http://erj.ersjournals.com/content/26/2/319.full.pdf+html>
2. <http://www.nejm.org/doi/pdf/10.1056/NEJMra071714>
3. <http://www.cancer.org/acs/groups/cid/documents/webcontent/003115-pdf.pdf>
4. <http://onlinelibrary.wiley.com/doi/10.1111/j.1469-0691.2011.03602.x/pdf>

Angiology:

1. 2016 AHA/ACC Focused Update of the Guideline for the Management of Patients With Peripheral Artery Disease <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5479414/>
2. Antithrombotic Therapy for VTE Disease <https://www.healthcare.uiowa.edu/familymedicine/fpinfo/Docs/Chest%20Rx%20VTE%20Feb%202016.pdf>
3. Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing [http://www.ebm-guidelines.com/ebmg/ltk.free?p\\_artikkeli=ebm00108](http://www.ebm-guidelines.com/ebmg/ltk.free?p_artikkeli=ebm00108)

**Didactic resources requirements (e.g. laboratory, multimedia projector, other...)**

Multimedia projector, access to different diagnostic labs .



**Preliminary conditions** (minimum requirements to be met by the student before starting the module/course)

Basic anatomy, physiology and pathophysiology

Preparation for classes and knowledge from previous years of study.

**Conditions to receive credit for the course** (specify the form, criteria and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades).

**Clinical classes credit:**

Each absence must be made up.

Attendance, and oral answer or/and test exam.

The examination consists of a written test exam (100 questions) and extended practical oral exam. Obtaining credit from the written test (at least 60% correct answers) admits to the practical part of examination. Failure results in the test exam within retake.

<b>Grade:</b>	<b>Criteria for course (midterm exam – winter and summer semester)</b>
Very Good (5.0)	Activity in classes and test much above the average
Good Plus (4.5)	Activity in classes and test above the average
Good (4.0)	Activity in classes and test average
Satisfactory Plus (3.5)	Activity in classes and test below the average
Satisfactory (3.0)	Activity in classes and test much below the average

  

<b>Grade:</b>	<b>Criteria for final exam (whole Internal Medicine)</b>
Very Good (5.0)	>90%
Good Plus (4.5)	85-89%
Good (4.0)	75-84%
Satisfactory Plus (3.5)	70-75%
Satisfactory (3.0)	60-69%

<b>Name of unit teaching course:</b>	<b>Department and Clinic of Endocrinology, Diabetology and Isotope Therapy</b>
Address	Pasteura 4 Street, 50-367 Wrocław, Poland
Phone	+48(71)7842546
E-mail	<a href="mailto:Marek.bolanowski@umed.wroc.pl">Marek.bolanowski@umed.wroc.pl</a> , <a href="mailto:justyna.kuliczowska-plaksej@umed.wroc.pl">justyna.kuliczowska-plaksej@umed.wroc.pl</a>
<b>Person responsible for course:</b>	<b>Prof. Marek Bolanowski</b>
Address	Pasteura 4 Street, 50-367 Wrocław, Poland



Phone	+48(71)784-25-59
E-mail	<a href="mailto:Justyna.kuliczowska-plaksej@umed.wroc.pl">Justyna.kuliczowska-plaksej@umed.wroc.pl</a> , <a href="mailto:marek.bolanowski@umed.wroc.pl">marek.bolanowski@umed.wroc.pl</a>

**1. Department and Clinic of Endocrinology, Diabetology and Isotope Therapy:**

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Marek Bolanowski	Professor	Internal medicine, endocrinology	physician	Clinical course
Jacek Daroszewski	Professor	Internal medicine, endocrinology, diabetology	physician	Clinical course
Justyna Kuliczowska-Plaksej	M.D. PhD	Internal medicine, endocrinology	physician	Clinical course
Katarzyna Zawadzka	M.D., PhD	Internal medicine,	physician	Clinical course
Aleksandra Jawiarczyk-Przybyłowska	M.D., PhD	Internal medicine, endocrinology	physician	Clinical course
Jowita Halupczok-Zyla	M.D., PhD candidate	Internal medicine, endocrinology	physician	Clinical course
Aleksandra Zdrojowy-Welna	M.D., PhD	Internal medicine, endocrinology	physician	Clinical course
Anna Brona	M.D., PhD	Internal medicine, endocrinology	physician	Clinical course
Marcin Kaluzny	M.D., PhD	Internal medicine, endocrinology, diabetology	physician,	Clinical course
Eliza Kubicka	M.D., PhD	Internal medicine, endocrinology	physician,	Clinical course
Lukasz Gojny	M.D., PhD candidate	Internal medicine, endocrinology	physician	Clinical course
Barbara Stachowska	M.D., PhD	Internal medicine, endocrinology	physician	Clinical course
Beata Polowczyk	M.D.	Internal medicine,	physician	Clinical course
Michał Miner	M.D.	Internal medicine,	physician	Clinical course
Aleksandra Drabik	M.D., PhD candidate	endocrinology	physician	Clinical course
Małgorzata Rolla	M.D., PhD candidate	endocrinology	physician	Clinical course

<b>Name of unit teaching course:</b>	<b>Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation</b>
Address	50-367 Wrocław, ul. Wybrzeże L. Pasteura 4
Phone	Tel. 71 784 25 76 , fax. 71 327 09 63
E-mail	<a href="mailto:WK-14@umed.wroc.pl">WK-14@umed.wroc.pl</a>
<b>Person responsible for course:</b>	<b>Prof. Tomasz Wrobel</b>
Phone	71 368 93 91
E-mail	<a href="mailto:tomasz.wrobel@umed.wroc.pl">tomasz.wrobel@umed.wroc.pl</a>



<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Tomasz Wróbel	Professor	Internal Medicine Hematology Transplantology	physician	CC
Dariusz Wołowicz	Professor	Internal Medicine Hematology	physician	CC
Lidia Usnarska-Zubkiewicz	Professor	Internal Medicine Hematology	physician	CC
Maria Podolak-Dawidziak	Professor	Internal Medicine Hematology	physician	CC
Anna Czyż	MD, PhD, Assoc. Prof.	Internal Medicine Hematology. Transplantology	physician	CC
Donata Urbaniak-Kujda	MD, PhD, Assoc. Prof.	Internal medicine, Endocrinology	physician	CC
Justyna Rybka	MD, PhD, Assoc. Prof.	Internal medicine Hematology Transplantology	physician	CC
Marta Sobas	M.D., PhD	Hematology	physician	CC
Maciej Majcherek	M.D., PhD	Hematology candidate	physician,	CC
Monika Biernat	M.D., PhD	Internal Medicine Hematology candidate	physician,	CC
Stanisław Potoczek	M.D., PhD	Internal Medicine, hematology	physician	CC
Elżbieta Kalicińska	M.D., PhD	Internal Medicine, Hematology candidate	physician	CC
Agnieszka Szeremet	M.D.	Internal Medicine, Hematology	physician	CC
Magdalena Olszewska-Szopa	M.D.	Internal Medicine,	physician	CC
Aleksandra Bogucka-Fedorczuk	M.D.	Internal Medicine	physician	CC
Jakub Dębski	M.D.	Internal Medicine, Hematology candidate	physician	CC
Michał Bator	M.D.	Hematology candidate	physician	CC
Katarzyna Wicherska-Pawłowska	M.D.	Hematology candidate	physician	CC
Paula Jabłonowska	mgr	Nurse	nurse	CC
Agnieszka Zieleni	mgr	Pharmacy	pharmacologist	CC

<b>Name of unit teaching course:</b>	<b>Department of Heart Diseases</b>
Address	Weigla 5 50-981
Phone	261-660-275
E-mail	aleksandra.erbert@umed.wroc.pl



Person responsible for course:	Prof. Piotr Ponikowski
Address	Weigla 5 50-981
Phone	261-660-237
E-mail	piotrponikowski@4wsk.pl

**Department and Clinic of Heart Diseases:**

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
Piotr Ponikowski	Professor	internal medicine, cardiology	physician	CC
Ewa Jankowska	Professor	internal medicine, cardiology	physician	CC
Krzysztof Reczuch	Professor	internal medicine, cardiology	physician	CC
Michał Zakliczyński	Professor	internal medicine, cardiology	physician	CC
Piotr Kübler	MD, PhD	internal medicine, cardiology	physician	CC
Krzystian Josiak	MD, PhD	internal medicine, cardiology	physician	CC
Robert Zymliński	MD, PhD	internal medicine, cardiology	physician	CC
Jan Biegus	MD, PhD	internal medicine, cardiology	physician	CC
Piotr Niewiński	MD, PhD	internal medicine, cardiology	physician	CC
Mateusz Sokolski	MD, PhD	internal medicine, cardiology	physician	CC
Krzysztof Nowak	MD, PhD	internal medicine, cardiology	physician	CC
Wojciech Zimoch	MD, PhD	internal medicine, cardiology	physician	CC
Michał Kosowski	MD	internal medicine, cardiology	physician	CC
Michał Tkaczyszyn	MD	internal medicine, cardiology	physician	CC
Stanisław Tubek	MD, PhD	internal medicine, cardiology	physician	CC
Marcin Drozd	MD	internal medicine, cardiology	physician	CC
Anna Woźnicka	MD, PhD	internal medicine, cardiology	physician	CC
Roman Przybylski	MD, PhD	internal medicine, cardiology	physician	CC
Marcin Bochenek	MD	internal medicine, cardiology	physician	CC



<b>Name of unit teaching course:</b>	<b>Department and Clinic of Nephrology and Transplantation Medicine</b>
Address	50-556 Wrocław, ul. Borowska 213
Phone	71 733 2500
E-mail	nefrologia@umed.wroc.pl

<b>Person responsible for course:</b>	<b>Prof dr hab. Magdalena Krajewska</b>
Phone	71 733 2500
E-mail	magdalena.krajewska@umed.wroc.pl

**Department and Clinic of Nephrology and Transplantation Medicine**

<i>List of persons conducting specific classes:</i>	<i>degree/scientific or professional title</i>	<i>Discipline</i>	<i>Performer profession</i>	<i>Form of classes</i>
<b>Dorota Kamińska</b>	MD, PhD	Internal medicine, nephrology, clinical transplantation	Medical doctor	CC
<b>Mariusz Kusztal,</b>	MD, PhD	Internal medicine, nephrology	Medical doctor	CC
<b>Mirosław Banasik,</b>	MD, PhD	Internal medicine, nephrology, clinical transplantation	Medical doctor	CC
<b>Krzysztof Letachowicz,</b>	MD, PhD	Internal medicine, nephrology	Medical doctor	CC
<b>Tomasz Gołębiowski,</b>	MD, PhD	Internal medicine, nephrology, clinical transplantation	Medical doctor	CC
<b>Sławomir Zmonarski,</b>	MD, PhD	Internal medicine, nephrology, clinical transplantation	Medical doctor	CC
<b>Maciej Szymczak,</b>	MD, PhD	Internal medicine, nephrology, clinical transplantation	Medical doctor	CC
<b>Andrzej Konieczny</b>	MD, PhD	Internal medicine, nephrology	Medical doctor	CC
<b>Katarzyna Jakuszko,</b>	MD, PhD	Internal medicine, nephrology	Medical doctor	CC
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Jerzy Świerkot	Professor	Internal Medicine Rheumatology	Physician	CC
Renata Sokolik	MD, PhD	Internal Medicine Rheumatology	Physician	CC
Magdalena Szmyrka	MD, PhD	Internal Medicine Rheumatology	Physician	CC
Marta Madej	MD, PhD	Internal Medicine Rheumatology	Physician	CC
Ewa Morgiel	MD, PhD	Internal Medicine Rheumatology	Physician	CC
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Paweł Stępniewski	MD, PhD candidate	Internal Medicine candidate	Physician	CC
Bartłomiej Bugaj	MD, PhD candidate	Internal Medicine candidate	Physician	CC
Marta Skoczyńska	MD, PhD candidate	Internal Medicine candidate	Physician	CC
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Monika Kosacka	MD, PhD, Assoc. Prof.	Internal Medicine Pulmonology	physician	CC
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Rajmund Adamiec	MD, PhD, Professor	Internal diseases, angiology,	Physician, academic teacher	clinical classes
Izabela Gosk-Bierska	MD, PhD, Associate Professor	Internal diseases, angiology	Physician, academic	clinical classes



			teacher	
Rafał Matecki	MD, PhD, Associate Professor	Internal diseases, angiology	Physician, academic teacher	clinical classes
Angelika Chachaj	MD, PhD	Internal diseases, angiology	Physician, academic teacher	clinical classes
Katarzyna Drożdż	MD, PhD	Internal diseases, angiology	Physician, academic teacher	clinical classes
Maciej Rabczyński	MD, PhD	Internal diseases, angiology	Physician, academic teacher	clinical classes
Marta Wasilewska	MD	Internal diseases, angiology	Physician, academic teacher	clinical classes
Marcin Pawlak	MD, PhD student	Internal diseases	Physician, PhD student	clinical classes
Kamil Klimas	MD, PhD student	Internal diseases	Physician PhD student	clinical classes
Magda Kabaj	MD, PhD student	Internal diseases	Physician PhD student	clinical classes
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**Date of Syllabus development**

31.05.2020

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