



Dept. of Angiology, Hypertension and Diabetology	7			15										
TOTAL per year:														
	30			65										
Educational objectives (max. 6 items)														
C1 Student should get acquainted with etiopathogenesis, symptomatology, and treatment of internal diseases (pulmonary diseases, kidney diseases, vascular diseases, and gastrointestinal diseases).														
C2 Knowledge of preventive measures against pulmonary diseases, kidney diseases, cardiovascular diseases, and gastrointestinal diseases.														
C3 Student should get acquainted with keeping medical records.														
C4 Student should get skills of history taking, an accurate physical examination with proper interpretation of disclosed abnormalities.														
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.														
C6 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.														
Education result matrix for module/course in relation to verification methods of the intended education result and the type of class														
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 summarizing)	Form of didactic class <i>**enter the abbreviation</i>										
K 01	EW1	Student defines epidemiology of the most common internal diseases.	Test/oral answer	L, CC										
K 02	EW7	Student describes etiology, symptomatology, diagnostic and therapeutic procedures in pulmonary, kidney, vascular, and gastrointestinal diseases.	Test/oral answer											
K 03	EW23	Student describes epidemiological and environmental conditions for the most common neoplasms.	Test/oral answer											
K 04	EW26	Student knows diagnostic and therapeutic algorithms in the most common neoplasms.	Test/oral answer											
S 01	EU1	Student takes clinical interview.	Direct observation of clinical skills	CC										
S 02	EU3	Student performs a thorough and accurate physical examination.	Direct observation of clinical skills											
S 03	EU13	Student assesses and describes psychosomatic state of a patient.	Direct observation of clinical skills											



S 04	EU14	Student recognizes life-threatening conditions.	Direct observation of clinical skills
S 05	EU16	Student plans diagnostic and therapeutic procedures in the most common diseases in adults.	Direct observation of planning the procedures
S 06	EU24	Student interprets the results of laboratory findings.	Verification of interpreting laboratory findings

** L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical 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)
1. Contact hours:	95
2. Student's own work (self-study):	32,5
Total student's workload	127,5
ECTS points for module/course	3,5
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 30 hours

Dept. of Pulmonology and Lung Cancers (8 hours – winter semester)

1. Dyspnea and respiratory insufficiency
2. Chest pain and pleural effusion
3. Cough and pneumonia
4. Daytime sleepiness and sleep breathing disorders

Dept. of Nephrology and Transplantation Medicine (7 hours – winter semester)

1. Glomerulonephritis - diagnosis and therapy
2. Diabetic kidney disease, interstitial nephritis, urinary tract infection and drug-induced nephropathy
3. Renal replacement therapy - peritoneal dialysis, hemodialysis, kidney transplantation

Dept. of Gastroenterology and Hepatology (8 hours – summer semester)

1. Diseases of the upper digestive tract
2. Functional gastrointestinal disorders
3. Inflammatory bowel diseases
4. Chronic non-infectious liver diseases

Dept. of Angiology, Hypertension and Diabetology (7 hours – summer semester)

1. Vasculitis: classification, diagnostic and therapeutic procedures
2. Clinical aspects of thrombophilia
3. Venous thromboembolic disease

Seminars NA



Practical classes 65 hours

Dept. of Pulmonology and Lung Cancers (15 hours – winter semester)

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.

Dept. of Nephrology and Transplantation Medicine (15 hours – winter semester)

1. Kidney diseases epidemiology. Kidney disease as a social problem. Reasons for the increase of cases of kidney disease. Symptoms of kidney disease. The definition of chronic kidney disease and its stages. Usefulness of determination and calculation of glomerular filtration rate - GFC. Acute and chronic glomerulonephritis (GN) - causes, part of the immune system in the pathogenesis of GN. Clinical manifestations: nephrotic, nephritic syndrome, subnephrotic proteinuria, hypertension. Histopathological changes of GN.
2. Interstitial nephritis. Urinary tract infections, diagnosis, classification, principles of therapy. Nephrolithiasis, metabolic predisposition and factors conducive to the formation of deposits. Polycystic kidney disease. Drug-induced nephropathy. Nephropathy after contrast media. Kidney tumors. Etiology and pathological mechanism of hypertension in kidney disease. Ischemic and hypertensive nephropathy. Renal-based hypertension and reno-vascular hypertension.
3. Renal involvement in immunological diseases, diabetes and cancer.
4. Chronic kidney disease - staging, symptoms, treatment. The possibility of slowing the progression of renal failure (IEK, ARB II, control of lipid disorders and reducing salt intake, anemia). Kidney disease in pregnancy. Pregnancy in a patient with chronic kidney disease.
5. Renal replacement therapy: dialysis (peritoneal dialysis, hemodialysis) renal transplantation. Indications for renal replacement therapy. Complications method of treatment. Acute renal failure - prerenal, renal and non-renal kidney failure. Iatrogenic damage.

Dept. of Gastroenterology and Hepatology (20 hours – summer semester)

1. Symptomatology of gastrointestinal tract diseases. Alarming symptoms. Indications and contraindications for diagnostics tests in gastroenterology. Interpretations of obtained results. Emergency situations in gastroenterology. Gastroesophageal reflux disease. Hiatal hernia. Esophageal cancer.
2. Functional dyspepsia. Peptic ulcers of stomach and duodenum. Helicobacter pylori infection. Gastric cancer. Maldigestion and malabsorption syndrome. Differential diagnosis of chronic diarrhoea. Celiac disease.
3. Inflammatory bowel disease: ulcerative colitis and Crohn's disease. Pseudomembranaceous colitis. Colonic diverticular disease. Colonic polyps. Colorectal cancer. Irritable bowel syndrome.
4. Diagnostic tests in diseases of the liver, biliary tract and pancreas. Indication for liver biopsy. Differential diagnosis of jaundice. Non-alcoholic fatty liver disease. Autoimmune liver diseases. Liver cirrhosis. Primary and secondary liver tumors.
5. Gallstones. Neoplasms of gallbladder and biliary tract. Acute and chronic pancreatitis.



Pancreatic cancer.

Dept. of Angiology, Hypertension and Diabetology (15 hours – summer semester)

1. Symptomatology and diagnosis of peripheral arterial diseases
 - anamnesis, including risk factors for atherosclerosis and predisposing factors for peripheral arterial disease
 - physical examination with assessment of peripheral arterial system
 - accessory examinations and laboratory tests in vascular diseasesPeripheral arterial disease (PAD):
 - types of obstruction, stages of PAD, prognosis
 - arteriosclerosis obliterans
 - another causes of chronic limbs ischemia.
2. Acute limb ischemia. Microvascular diseases: Raynaud phenomenon, livedo reticularis, acrocyanosis, erythromelalgia. Prophylaxis and treatment of peripheral arterial disease (PAD): pharmacological, physiotherapy, intravascular procedures.
3. Diabetic vascular complications: pathogenesis and clinical manifestation of micro- and macroangiopathy. Diabetic foot syndrome: epidemiology, prophylaxis, medical treatment, invasive treatment (indications for endovascular treatment, surgical treatment, and amputation), topical treatment, physiotherapy.
4. Venous thromboembolic disease: pulmonary embolism, deep vein thrombosis. Varicose veins. Superficial thrombophlebitis. Classification of chronic venous insufficiency CEAP.
5. Chronic lymphatic insufficiency. Symptoms and pathophysiology of lymphedema. Compression therapy in lymphatic edema. Treatment of venous and lymphatic ulcerations

Other NA

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

1. Harrison's Principles of Internal Medicine, Publisher: McGraw-Hill Medical; 19th Edition 2017.
2. HEROLD's Internal Medicine, Publisher: Lulu Pr; Second English Edition 2018.
3. Macleod's Clinical Examination. Graham Douglas, Fiona Nicol, Colin Robertson. Edition 13th, 2013.

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

Secondary sources with other didactic help: (not more than 3 items)

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

Gastroenterology:

Avanduc C, Manual of Gastroenterology, Lippincott Williams & Wilkins, 2008

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

Access to the treatment room, endoscopy unite, bronchoscopy lab, spirometry lab, polysomnography room, etc.
Multimedia projector, notebook, laptop;



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

Student should know the basics of anatomy and physiology of the respiratory system, urinary tract, cardiovascular system, and gastrointestinal tract, as well as the basics of propedeutics of internal diseases.

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).

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

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

Grade:	Criteria for course
Very Good (5.0)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the urinary system is estimated at 92%. The student interprets medical research, makes a diagnosis, suggests treatment very well.
Good Plus (4.5)	Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the urinary system 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 diseases of the urinary system 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 diseases of the urinary system 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 diseases of the urinary system is estimated at 60%. The student interprets medical research, makes a diagnosis, suggests treatment sufficiently.
Grade:	Criteria for exam (if applicable)
Very Good (5.0)	
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	

Name of unit teaching course:	Dept. of Pulmonology and Lung Cancers
Address	Grabiszyńska 105, 53-439 Wrocław
Phone	713349559
E-mail	pulmonologia.klinika@umed.wroc.pl

Person responsible for course:	dr hab. n. med. Monika Kosacka
Phone	71 33 49 670
E-mail	monika.kosacka@umed.wroc.pl



<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>
Anna Brzecka	MD, PhD, Professor WMU	Internal diseases, pulmonology	Physician, academic teacher	Lectures, clinical classes
Monika Kosacka	MD, PhD, Associate Professor	Internal diseases, pulmonology	Physician, academic teacher	Clinical classes
Paweł Piesiak	MD, PhD	Internal diseases, pulmonology	Physician, academic teacher	Clinical classes
Irena Porębska	MD, PhD	Internal diseases, pulmonology	Physician, academic teacher	Clinical classes
Cyryl Daroszewski	MD	Internal diseases	Physician, academic teacher	Clinical classes

Name of unit teaching course:	Dept. of Nephrology and Transplantation Medicine
Address	Borowska 213, 50-556 Wrocław
Phone	71 733 25 00
E-mail	nefrologia@umed.wroc.pl

Person responsible for course:	prof dr hab. Magdalena Krajewska
Phone	71 733 25 00
E-mail	nefrologia@umed.wroc.pl

<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>
Magdalena Krajewska	Professor, MD, PhD,	Internal diseases, nephrology, transplantology	Physician, academic teacher	Lectures, clinical classes
Oktawia Mazanowska	MD, PhD, Professor WMU	Internal diseases, nephrology, transplantology	Physician, academic teacher	Clinical classes
Dorota Kamińska	MD, PhD, Associate Professor	Internal diseases, nephrology, transplantology	Physician, academic teacher	Clinical classes
Mirosław Banasik	MD, PhD, Associate Professor	Internal diseases, nephrology, transplantology	Physician, academic teacher	Clinical classes
Krzysztof Letachowicz	MD, PhD, Associate Professor	Internal diseases, nephrology	Physician, academic teacher	Clinical classes
Mariusz Kusztal	MD, PhD, Associate Professor	Internal diseases, nephrology	Physician, academic teacher	Clinical classes
Tomasz Gołębiowski	MD, PhD	Internal diseases, nephrology	Physician, academic teacher	Clinical classes
Hanna Augustyniak-Bartosik	MD, PhD	Internal diseases, nephrology, transplantology	Physician, academic teacher	Clinical classes
Sławomir Zmonarski	MD, PhD	Internal diseases, nephrology, transplantology	Physician, academic teacher	Clinical classes



Name of unit teaching course:	Dept. of Gastroenterology and Hepatology
Address	Borowska 213, 50-556 Wrocław
Phone	71 733 21 20
E-mail	gastro@gastro.am.wroc.pl

Person responsible for course:	dr n. med. Katarzyna Neubauer
Phone	71 733 21 20
E-mail	katarzyna.neubauer@umed.wroc.pl

<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>
Agata Mulak	MD, PhD, Associate Professor	Internal diseases, gastroenterology	Physician, academic teacher	Lectures, clinical classes
Dorota Waśko-Czopnik	MD, PhD, Associate Professor	Internal diseases, gastroenterology	Physician, academic teacher	Clinical classes
Radosław Kempirński	MD, PhD	Internal diseases, gastroenterology	Physician, academic teacher	Lectures, clinical classes
Katarzyna Neubauer	MD, PhD	Internal diseases, gastroenterology	Physician, academic teacher	Clinical classes
Robert Dudkowiak	MD, PhD	Internal diseases, gastroenterology	Physician, academic teacher	Clinical classes
Adam Smereka	MD, PhD	Internal diseases	Physician, academic teacher	Lectures, clinical classes
Monika Kukulska	MD, PhD	Internal diseases	Physician, academic teacher	Clinical classes
Anna Zubkiewicz-Zarębska	MD, PhD	Internal diseases	Physician, academic teacher	Clinical classes
Izabela Smoła	MD	Internal diseases	Physician, academic teacher	Clinical classes

Name of unit teaching course:	Dept. of Angiology, Hypertension and Diabetology
Address	Borowska 213, 50-556 Wrocław
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E-mail	ang.nt.diab@umed.wroc.pl

Person responsible for course:	Prof. dr hab. Rajmund Adamiec
Phone	71 733 22 00
E-mail	rajmund.adamiec@umed.wroc.pl

<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>
Izabela Gosk-Bierska	MD, PhD, Associate Professor	Internal diseases, angiology	Physician, academic teacher	Clinical classes
Rafał Matecki	MD, PhD, Associate Professor	Internal diseases, angiology	Physician, academic teacher	Lectures, clinical classes



Maciej Rabczyński	MD, PhD	Internal diseases, angiology	Physician, academic teacher	Clinical classes
Marta Wasilewska	MD	Internal diseases	Physician, academic teacher	Clinical classes
Marcin Pawlak	MD	Internal diseases	Physician, PhD student	Clinical classes

Date of Syllabus development

05.07.2019

Syllabus developed by

Agata Mulak
dr hab. Agata Mulak

Signature of Head of teaching unit

Uniwersytet Medyczny we Wrocławiu
KATEDRA I KLINIKA ENDOKRYNOLOGII,
DIABETOLOGII I LECZENIA IZOTOPAMI
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M. Bolanowski
prof. dr hab. n. med. Marek Bolanowski

Signature of Faculty Dean

Wrocław Medical University
FACULTY OF MEDICINE
VICE-DEAN FOR STUDIES IN ENGLISH
Andrzej Hendrich
Prof. Andrzej Hendrich, PhD

