





Summer Semester													
Dept. of Gastroenterology and Hepatology	6				18								
Dept. of Angiology, Systemic Hypertension and Diabetology	6				12								
<b>TOTAL per year:</b>													
	24				60								
<p>Educational objectives (max. 6 items)</p> <p>C1 Student should get acquainted with etiopathogenesis, symptomatology, and treatment of internal diseases (pulmonary diseases, kidney diseases, vascular diseases, and gastrointestinal diseases).</p> <p>C2 Knowledge of preventive measures against pulmonary diseases, kidney diseases, cardiovascular diseases, and gastrointestinal diseases.</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>			
W 01	EW1	Student defines epidemiology of the most common internal diseases.				Test/oral answer				L, CC			
W 02	EW7	Student describes etiology, symptomatology, diagnostic and therapeutic procedures in pulmonary, kidney, vascular, and gastrointestinal diseases.											
W 03	EW23	Student describes epidemiological and environmental conditions for the most common neoplasms.											
W 04	EW26	Student knows diagnostic and therapeutic algorithms in the most common neoplasms.											
U 01	EU1	Student takes clinical interview.				Oral answer/ direct observation of clinical skills				CC			



U 02	EU3	Student performs a thorough and accurate physical examination.		
U 03	EU13	Student assesses and describes psychosomatic state of a patient.		
U 04	EU14	Student recognizes life-threatening conditions.		
U 05	EU16	Student plans diagnostic and therapeutic procedures in the most common diseases in adults.		
U 06	EU24	Student interprets the results of laboratory findings.		
K 01		Students willingly participate in the classes and in the patients physical examination	Direct observation of clinical skills	CC
K 02		Students collaborate in a group on planning diagnostic procedures		
K 03		Students actively participate in treatment planning.		
<p>** 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 .</p>				
<p>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 Social competences: 5</p>				
<b>Student's amount of work (balance of ECTS points)</b>				
<b>Student's workload</b> (class participation, activity, preparation, etc.)			<b>Student Workload (h)</b>	
1. Contact hours:			84	
2. Student's own work (self-study):			30	
Total student's workload			114	
<b>ECTS points for module/course</b>			<b>4</b>	
Comments				
<p><b>Content of classes</b> (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)</p>				
<p>Lectures 24 hours <b>Dept. of Pulmonology and Lung Cancers (6 hours – winter semester)</b> 1. Dyspnea 2. Pleural effusion</p>				



### 3. Breathing disorders during sleep

#### **Dept. of Nephrology and Transplantation Medicine (6 hours – winter semester)**

1. Diagnosis and treatment of glomerulonephritis- basis
2. Renal replacement therapy : hemodialysis, peritoneal dialysis and kidney transplantation
3. Renal complications of diabetes ; interstitial nephritis , urinary tract infection and drug-induced nephropathy

#### **Dept. of Gastroenterology and Hepatology (6 hours – summer semester)**

1. Functional gastrointestinal disorders
2. Inflammatory bowel disease
3. Chronic non-infectious liver disease

#### **Dept. of Angiology, Systemic Hypertension and Diabetology (6 hours – summer semester)**

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

Seminars NA

Practical classes 60 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 , subnephroticproteinuria , hypertension. Histopathological changes of GN.
2. Interstitial nephritis. Urinary tract infections, diagnosis, classificatio, principles of therapy. Nephrolithiasis , metabolic predisposition and factors conducive to the formation of deposits . Polycystic kidney disease. Drug-induced nephropath. Nephropathy after contrast media. Kidney tumors. Etiology and pathological mechanism of hypertension in kidney disease. Ischemic nephropathyand hypertensive. 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. Jatrogenic damage.

**Dept. of Gastroenterology and Hepatology (18 hours – summer semester)**

1. Symptomatology of gastrointestinal tract diseases. Alarming symptoms. Indications and contraindications for diagnostics tests in gastroenterology. Interpretations of obtained results. Gastroesophageal reflux disease. Hiatal hernia. Oesophageal cancer.
2. Functional dyspepsia. Peptic ulcers of stomach and duodenum. Helicobacter pylori infection. Gastric cancer.
3. Maldigestion and malabsorption syndrome. Differential diagnosis of chronic diarrhoea. Celiac disease. Crohn's disease. Ulcerative colitis. Pseudomembranaceous colitis.
4. Colonic diverticular disease. Colonic polyps. Colorectal cancer. Irritable bowel syndrome. Emergency situations in gastroenterology.
5. 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.
6. Gallstones. Neoplasms of gallbladder and biliary tract. Acute and chronic pancreatitis. Pancreatic cancer.

**Dept. of Angiology, Systemic Hypertension and Diabetology (12 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. Raynaud's phenomenon. 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. Chronic lymphatic insufficiency. 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; 18th Edition 2011.
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** (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>

Gastroenterology:

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

Angiology:

1. Vascular Medicine and Endovascular Intervention. Thom W. Rooke, Timothy M. Sullivan, Michael R. Jaff DO; Wiley-Blackwell 2007
2. 2011 ACCF/AHA Focused Update of the Guideline for the Management of Patients With Peripheral Artery Disease <http://circ.ahajournals.org/content/124/18/2020.full.pdf+html>
3. Antithrombotic Therapy for VTE Disease  
<http://journal.publications.chestnet.org/pdfaccess.ashx?ResourceID=6568310>
4. Venous thromboembolic diseases: the management of venous thromboembolic diseases and the role of thrombophilia testing

<http://www.nice.org.uk/guidance/cg144/resources/guidance-venous-thromboembolic-diseases-the-management-of-venous-thromboembolic-diseases-and-the-role-of-thrombophilia-testing-pdf>

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

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

**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 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)

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

<b>Grade:</b>	<b>Criteria</b> (only for courses/modules ending with an examination)
Very Good (5.0)	
Good Plus (4.5)	
Good	



(4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	

**Name and address of module/course teaching unit, contact: telephone and e-mail address**

Dept. of Pulmonology and Lung Cancers  
Grabiszyńska 105, 53-439 Wrocław, tel. 713349559, 713349700;  
[monika.kosacka@umed.wroc.pl](mailto:monika.kosacka@umed.wroc.pl)

Dept. of Nephrology and Transplantation Medicine  
Borowska 213, 50-556 Wrocław, tel. 71 733 25 00  
[klinef@am.centrum.pl](mailto:klinef@am.centrum.pl)

Dept. of Angiology, Systemic Hypertension and Diabetology  
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Borowska 213 Wrocław, 50-556 Wrocław, tel. 71 733 21 20  
[gastro@gastro.am.wroc.pl](mailto:gastro@gastro.am.wroc.pl)

**Coordinator / Person responsible for module/course, contact: telephone and e-mail address**

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tel. 71 733 21 20

**List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.**



**Dept. of Pulmonology and Lung Cancers**

Lectures, classes:

prof. dr hab. Anna Brzecka

Classes:

dr n. med. Monika Kosacka

dr n. med. Aneta Kowal

dr n. med. Ewa Passowicz-Muszyńska

dr n. med. Paweł Piesiak

dr n. med. Irena Porębska

**Dept. of Nephrology and Transplantation Medicine**

Lectures:

prof. dr hab. Marian Klinger

Classes:

prof. dr hab. Magdalena Krajewska

dr hab. Oktawia Mazanowska

dr hab. Mariusz Kuszał

dr hab. Mirosław Banasik

dr n. med. Dorota Kamińska

dr n. med. Maria Magott-Procelewska

dr n. med. Sławomir Zmonarski

dr n. med. Józef Penar

dr n. med. Krzysztof Letachowicz

dr n. med. Tomasz Gołębiowski

dr n. med. Maciej Szymczak

dr n. med. Katarzyna Jakuszko

**Dept. of Gastroenterology and Hepatology**

Lectures, classes:

dr hab. Agata Mulak

dr n. med. Radosław Kempniński

dr n. med. Katarzyna Neubauer

Classes:

dr hab. Dorota Waśko-Czopnik

dr med. Anna Zubkiewicz-Zarębska

dr med. Katarzyna Neubauer

dr med. Adam Smereka

dr n. med. Robert Dudkowiak

dr med. Barbara Woźniak-Stolarska

**Dept. of Angiology, Systemic Hypertension and Diabetology**

Lectures, classes:

dr n. med. Rafał Małecki

Classes:

dr hab. Izabela Gosk-Bierska

dr med. Maciej Rabczyński

lek. Marta Wasilewska

lek. Agnieszka Majer

lek. Marcin Pawlak





**Date of Syllabus development**

27.06.2017

**Syllabus developed by**  
(based on the partial course syllabus prepared  
by the lecturers at each unit)

*Agata Mulak*

dr hab. Agata Mulak

**Signature of Head of teaching unit**

Uniwersytet Medyczny we Wrocławiu  
KATEDRA I KLINIKA ENDOKRYNOLOGII,  
DIABETOLOGII I LECZENIA IZOTOPAMI  
Kierownik

*M. Bolanowski*  
prof. dr hab. n. med. Marek Bolanowski

**Signature of Faculty Dean**

Wrocław Medical University  
FACULTY OF MEDICINE  
VICE-DEAN FOR ENGLISH  
*A. Hludnik*