



Syllabus for academic year: 2021/2022 Training cycle: 2017/2018 – 2022/2023													
Description of the course													
Course	Internal medicine (2)								Group of detailed education results				
									Group code	Group name			
									E	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	V						Semester:	<input checked="" type="checkbox"/> winter <input checked="" type="checkbox"/> 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: 45													
Department and Clinic of Angiology, Hypertension and Diabetology													
Direct (contact) education ¹													
Distance learning ²	3												
Department and Clinic of Endocrinology, Diabetes and Isotope Therapy													

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

² Education with applied methods and techniques for distance learning



Direct (contact) education														
Distance learning	3													
Department and Clinic of Haematology, Blood Neoplasms and Bone Marrow Transplantation														
Direct (contact) education														
Distance learning	3													
Institute of Heart Diseases					10									
Direct (contact) education														
Distance learning	3													
Department and Clinic of Gastroenterology and Hepatology														
Direct (contact) education					20									
Distance learning	3													
Summer semester: 45														
Department and Clinic of Angiology, Hypertension and Diabetology														
Direct (contact) education														
Distance learning	3													
Department and Clinic of Endocrinology, Diabetes and Isotope Therapy														
Direct (contact) education														
Distance learning	3													
Department and Clinic of Haematology, Blood Neoplasms and Bone Marrow Transplantation														
Direct (contact) education														
Distance learning	3													
Institute of Heart Diseases														
Direct (contact) education					5									
Distance learning	3													
Department and Clinic of Gastroenterology and Hepatology														
Direct (contact) education					25									



Distance learning	3												
TOTAL per year: 90													
Direct (contact) education					60								
Distance learning	30												
Educational objectives (max. 6 items)													
C1. Student should get acquainted with etiopathogenesis, symptomatology, diagnosis and treatment of internal diseases in the frame of cardiology, gastroenterology, angiology, endocrinology, and haematology.													
C2. Student should get acquainted with preventive measures against most common internal 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. Developing social competences required 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	Knows the environmental and epidemiological determinants of the most common diseases;				oral answer/test				L, CC				
E.W7	Knows the causes of symptoms, principles of diagnosis and therapeutic management of the most common internal diseases affecting adults and their complications: 1. cardiovascular diseases, including ischaemic heart disease, heart defects, diseases of the endocardium, heart muscle, pericardium, heart failure (acute and chronic), arterial and venous vascular diseases, hypertension - primary and secondary, pulmonary hypertension, 2. diseases of the respiratory system, including respiratory tract diseases, chronic obstructive pulmonary disease, bronchial asthma, bronchia dilatation, cystic fibrosis, respiratory infections, interstitial lung diseases, pleural diseases, mediastinal diseases, obstructive and central sleep apnoea, respiratory failure (acute and chronic), respiratory cancers, 3. diseases of the digestive system, including diseases of the oral cavity, oesophagus, stomach and duodenum, intestines, pancreas, liver, bile ducts and gallbladder, 4. endocrine diseases, including hypothalamus and pituitary, thyroid, parathyroid gland, cortex of the adrenal gland and suprarenal medulla, ovarian and testicular diseases and neuroendocrine tumours, polyglandular syndromes, different types of diabetes mellitus and metabolic syndrome - hypoglycaemia, obesity, dyslipidaemia, 5. kidney and urinary tract diseases, including acute and chronic renal failure, glomerular and interstitial kidney diseases, renal cysts, kidney stones, urinary tract infections, and urinary tract tumours, in particular of the bladder and kidney, 6. haematopoietic diseases including bone marrow aplasia, anaemia, granulocytopenia and agranulocytosis, thrombocytopenia, acute leukaemias, myeloproliferative neoplasms myelodysplastic/ myeloproliferative neoplasms, myelodysplastic syndromes, mature B and T cell neoplasms, haemorrhagic diathesis, thrombophilia, life-threatening conditions in haematology, blood disorders in diseases of other organs, 7. rheumatic diseases, including systemic connective tissue diseases, systemic vasculitis, arthritis with spinal involvement, metabolic bone diseases, in particular osteoporosis and osteoarthritis, gout, 8. allergic diseases, including anaphylaxis and anaphylactic shock, and angioedema, 9. water-electrolyte and acid-base disorders: states of dehydration, states of overhydration, electrolyte disturbances, acidosis and alkalosis;				oral answer/test								
E.W39	Knows the types of biological materials used in laboratory diagnosis and the principles for collecting material for tests;				oral answer/test								
E.W40	Knows the theoretical and practical background of laboratory diagnostics;				oral answer/test								



E.W42	Knows the indications for implementing monitored therapy;	oral answer/test		
E.U1	Is able to conduct anamnesis with an adult patient;	direct observation of clinical skills	CC	
E.U3	Is able to conduct a complete and focused physical examination of an adult patient;			
E.U7	Is able to assess the general condition, state of consciousness and awareness of the patient;	implementation of the commissioned task		
E.U12	Is able to perform differential diagnosis of the most common diseases of adults and children; E.U13. assess and describe the somatic and psychological state of the patient;	direct observation of clinical skills		
E.U14	Is able to recognize immediate life-threatening conditions;	implementation of the commissioned task		
E.U16	Is able to plan diagnostic, therapeutic and preventive procedures;	direct observation of clinical skills		
E.U24	Is able to interpret laboratory test results and identify causes of deviations from the norm;	implementation of the commissioned task		
E.U37	Is able to recognize patient's agony and pronounce patient's death;	implementation of the commissioned task		
E.U38	Is able to maintain patient's medical records;	evaluation of social competence		CC
	Is ready to sea and recognize own limitations and to take an assessment of deficits and educational needs;			

* 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
1. Number of hours of direct contact:	60
2. Number of hours of distance learning:	30
3. Number of hours of student's own work:	30
4. Number of hours of directed self-study	NA
Total student's workload	120
ECTS points for course	4,5

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

Department and Clinic of Angiology, Hypertension and Diabetology

- Micro- and macro-angiopathy in diabetes. Diabetic foot
- Diseases of the lymphatic system

Department and Clinic of Endocrinology, Diabetes and Isotope Therapy

- Osteoporosis
- Neuroendocrine tumors of gastrointestinal tract

Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation

- Acute leukemias and myelodysplastic syndromes
- Lymphoproliferative disorders

Institute of Heart Diseases

- Acute and chronic heart failure
- Contemporary treatment of valvular heart diseases
- Modern treatment of tachy- and bradyarrhythmias
- Pulmonary embolism

Department and Clinic of Gastroenterology and Hepatology

- Organic and functional diseases of the gastrointestinal tract
- Diseases of the liver, biliary tract and pancreas



Seminars – N/A

Classes 60 hours

Institute of Heart Diseases (15 hours)

- Physical examination of cardiovascular system, laboratory parameters used in cardiovascular disease, imaging techniques, drugs used in cardiology. ECG – basic rules
- Mitral regurgitation. STEMI. Coronary angiography and PCI. Advanced life support
- Mitral stenosis. Bradyarrhythmias and conduction disturbances. NSTEMI
- Aortic regurgitation. SVT. AF/AFL. Prophylaxis of arterial and venous thrombotic events
- Aortic stenosis. VT. Sudden cardiac death. Stable angina pectoris
- Other acquired valve diseases. Blood pressure measuring. Arterial hypertension
- Electrophysiology study, Holter ECG. PM + CRT + ICD. Prevention of cardiovascular diseases. Test
- Chronic heart failure. Cardiopulmonary exercise test. Heart transplantation
- Acute heart failure (including pulmonary oedema, cardiogenic shock, right ventricular failure, hyperkinetic heart failure)
- Infective endocarditis. Pericarditis. Cardiac tamponade
- Pulmonary embolism and vein thrombosis. Prophylaxis of arterial and venous thrombotic events
- Pulmonary hypertension. Congenital heart diseases. Cardiac tumours. Test

Department and Clinic of Gastroenterology and Hepatology (45 hours)

- 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. Oesophageal cancer
- Functional dyspepsia. Peptic ulcers of stomach and duodenum. Helicobacter pylori infection. Gastric cancer. Maldigestion and malabsorption syndrome. Differential diagnosis of chronic diarrhoea. Celiac disease
- Inflammatory bowel disease: ulcerative colitis and Crohn's disease. Pseudomembranaceous colitis. Colonic diverticular disease. Colonic polyps. Colorectal cancer. Irritable bowel syndrome
- 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
- Gallstones. Neoplasms of gallbladder and biliary tract. Acute and chronic pancreatitis. Pancreatic cancer
- Differential diagnosis of esophageal diseases. Achalasia. Esophageal motility disorders. Functional esophageal disorders. Diverticulum of the esophagus. Eosinophilic esophagitis. Mallory-Weiss syndrome
- Peptic ulcers of stomach and duodenum – complications and their therapy. Eradicative therapy of the Helicobacter pylori infection. Functional gastroduodenal disorders
- Extraintestinal manifestations and complications of coeliac disease. Differential diagnosis of inflammatory bowel disease. Intestinal ischaemia. Small intestine bacterial overgrowth
- Functional bowel disorders. Functional anorectal disorders. Gastrointestinal bleeding. Hereditary and familial colorectal cancer. Surveillance after colonic polypectomy
- Metabolic liver disorders. Treatment of the liver cirrhosis complications. Indications for liver transplantation. Biliary tract dyskinesia. Neuroendocrine gastrointestinal tumours. Differential diagnosis of pancreatic tumors

Other – N/A

Basic literature

1. Jameson JL et al. Harrison's Principles of Internal Medicine, McGraw-Hill Medical 2018; 20th ed.
2. Gerd Herold. Internal Medicine. Lulu.com 2017; 2nd ed.
3. Innes JA et al. Macleod's Clinical Examination, Elsevier 2018; 14th ed.

Additional literature and other materials

1. Wilkinson, Raine, Wiles et al. "Oxford Handbook of Clinical Medicine", Oxford University Press, 10th Edition, 2019.
2. 2017 ESC Guidelines on the Diagnosis and Treatment of Peripheral Arterial Diseases, in collaboration with the European Society for Vascular Surgery (ESVS) <https://academic.oup.com/eurheartj/article/39/9/763/4095038>
3. Current Guidelines from European Society of Cardiology (www.escardio.org/guidelines)

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 propaedeutics of internal diseases.

Conditions to receive credit for the course:

Attention! Attendance only cannot be a condition for passing the course.

Attendance at lectures (absence acc. to the study regulation).

Full attendance at clinical classes. Active participation in clinical classes. Evaluation of practical skills during classes.

Positive result of a test and/or oral evaluation (grade) after completing all classes.

Negative result may be improved during oral evaluation.

Each absence must be made up, including rector's days or dean's hours (in that case a presentation or essay prepared by a student as part of self-study is recommended).

The evaluation takes place in a direct contact with the teacher. In justified cases, by the rector's decision it may take place in a remote form.

Grade:	Criteria for courses ending with a grade ³
Very Good (5.0)	<ul style="list-style-type: none"> 93-100% points of credential test Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the gastrointestinal system is estimated at 95%. The student interprets medical research, makes a diagnosis, suggests treatment very well.
Good Above (4.5)	<ul style="list-style-type: none"> 85-92% points of credential test Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the gastrointestinal system is estimated at 90%. The student interprets medical research, makes a diagnosis, suggests treatment above well.
Good (4.0)	<ul style="list-style-type: none"> 77-84% points of credential test Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the gastrointestinal system is estimated at 80%. The student interprets medical research, makes a diagnosis, suggests treatment well.
Satisfactory Plus (3.5)	<ul style="list-style-type: none"> 69-76% points of credential test Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the gastrointestinal system is estimated at 70%. The student interprets medical research, makes a diagnosis, suggests treatment fairly well.
Satisfactory (3.0)	<ul style="list-style-type: none"> 60-68% points of credential test Knowledge of issues related to the pathogenesis, symptomatology, treatment and prevention of diseases of the gastrointestinal system is estimated at 60%. The student interprets medical research, makes a diagnosis, suggests treatment sufficiently.
	Criteria for courses ending with a credit³
Credit	

Department in charge of the course:	Department and Clinic of Angiology, Hypertension and Diabetology
Department address:	Borowska 213 Wrocław
Telephone:	71 733 22 00
E-Mail:	ang.nt.diab@umed.wroc.pl , andrzej.szuba@umed.wroc.pl

Person in charge for the course:	Prof. Andrzej Szuba
Telephone:	71 733 22 00
E-Mail:	andrzej.szuba@umed.wroc.pl

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



List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Andrzej Szuba	MD, PhD, Professor	Medical science	physician, academic teacher	L
Rajmund Adamiec	MD, PhD, Professor	Medical science	physician, academic teacher	L

Department in charge of the course:	Department and Clinic of Endocrinology, Diabetes and Isotope Therapy
Department address:	Pasteura 4, 50-367 Wrocław
Telephone:	71-784 25 45, 71 784 25 46
E-Mail:	marek.bolanowski@umed.wroc.pl

Person in charge for the course:	Prof. Marek Bolanowski
Telephone:	71 784 25 45, 71 784 25 46
E-Mail:	marek.bolanowski@umed.wroc.pl

List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Marek Bolanowski	MD, PhD, Professor	Medical science	physician, academic teacher	L

Department in charge of the course:	Department and Clinic of Haematology, Blood Neoplasms, and Bone Marrow Transplantation
Department address:	Pasteura 4, 50-367 Wrocław
Telephone:	717842576
E-Mail:	tomasz.wrobel@umed.wroc.pl

Person in charge for the course:	Marta Sobas
Telephone:	71 7842576
E-Mail:	marta.sobas@umed.wroc.pl

List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Tomasz Wróbel	MD, PhD, Professor	Medical science	physician, academic teacher	L
Justyna Rybka	MD, PhD, Associate Professor	Medical science	physician, academic teacher	L

Department in charge of the course:	Institute of Heart Diseases
Department address:	Borowska 213, 50-556 Wrocław
Telephone:	71-7331113
E-Mail:	aleksandra.erbert@umed.wroc.pl

Person in charge for the course:	Piotr Niewiński
Telephone:	71-7331113
E-Mail:	piotr.niewinski@umed.wroc.pl



List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Piotr Ponikowski	MD, PhD, Professor	Medical science	physician, academic teacher	CC, L
Krzysztof Reczuch	MD, PhD, Professor	Medical science	physician, academic teacher	CC, L
Ewa Jankowska	MD, PhD, Professor	Medical science	physician, academic teacher	CC, L
Michał Zakliczyński	MD, PhD, Professor	Medical science	physician, academic teacher	CC, L
Piotr Kubler	MD, PhD, Associate Professor	Medical science	physician, academic teacher	CC, L
Krzysztof Josiak	MD, PhD	Medical science	physician, academic teacher	CC, L
Robert Zymliński	MD, PhD, Associate Professor	Medical science	physician, academic teacher	CC, L
Jan Biegus	MD, PhD, Associate Professor	Medical science	physician, academic teacher	CC
Piotr Niewiński	MD, PhD	Medical science	physician, academic teacher	CC
Mateusz Sokolski	MD, PhD	Medical science	physician, academic teacher	CC
Krzysztof Nowak	MD, PhD	Medical science	physician, academic teacher	CC
Wojciech Zimoch	MD, PhD	Medical science	physician, academic teacher	CC
Michał Kosowski	MD	Medical science	physician, academic teacher	CC
Marcin Drozd	MD	Health science (50%) Medical science (50%)	physician, academic teacher	CC
Stanisław Tubek	MD, PhD	Medical science	physician, academic teacher	CC
Michał Tkaczyszyn	MD, PhD	Health science (50%) Medical science (50%)	physician, academic teacher	CC
Maciej Bochenek	lek	Medical science	physician, academic teacher	CC
Roman Przybylski	dr n. med.	Medical science	physician, academic teacher	CC

Department in charge of the course:	Department and Clinic of Gastroenterology and Hepatology
Department address:	Borowska 213, 50-556 Wrocław
Telephone:	71-733120
E-Mail:	gastro@gastro.am.wroc.pl

Person in charge for the course:	Katarzyna Neubauer
Telephone:	71-7332120
E-Mail:	katarzyna.neubauer@umed.wroc.pl

List of persons conducting specific classes:				
Name and surname	Degree/scientific or professional title	Discipline	Performed profession	Form of classes
Agata Mułak	MD, PhD, Associate Professor	Medical science	physician, academic teacher	CC, L
Katarzyna Neubauer	MD, PhD, Associate Professor	Medical science	physician, academic teacher	CC, L
Dorota Waśko-Czopnik	MD, PhD, Associate Professor	Medical science	physician, academic teacher	CC, L
Radosław Kempniński	MD, PhD	Medical science	physician, academic teacher	CC, L
Adam Smereka	MD, PhD	Medical science	physician, academic teacher	CC, L
Robert Dudkowiak	MD, PhD	Medical science	physician, academic teacher	CC



Iga Gromny	MD, PhD	Medical science	physician, academic teacher	CC
Karol Kowalski	MD, PhD	Medical science	physician, academic teacher	CC
Monika Kukulska	MD, PhD	Medical science	physician, academic teacher	CC
Anna Zubkiewicz-Zarębska	MD, PhD	Medical science	physician, academic teacher	CC
Paweł Kuźnicki	MD	Medical science	physician, academic teacher	CC
Izabela Smoła	MD	Medical science	physician, academic teacher	CC
Wojciech Pisarek	MD	Medical science	physician, academic teacher	CC

Date of Syllabus development

30.08.2021


Syllabus developed by

Agata Mulak, MD, PhD

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

Dean's signature

Wrocław Medical University
Faculty of Medicine
Vice-Dean for English Studies
.....
prof. Beata Zubkiewicz-Zarębska, PhD



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

