**SYLLABUS**

Academic year 2020/2021

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| **Name of a course / module** | **INTERNAL MEDICINE** |
| **Name of departments where course is held** | 1. Clinical Department of Allergic and Internal Diseases
2. First Department of Lung Diseases and Tuberculosis
3. Second Department of Lung Diseases and Tuberculosis
4. Department of Endocrinology, Diabetology and Internal Medicine
5. Department of Gastroenterology and Internal Medicine
6. Department of Hematology
7. Department of Cardiology with OIOK Department of Invasive Cardiology
8. I Department of Nephrology with Dialysis Unit
9. Second Department of Nephrology and Hypertension with Dialysis Unit
10. Department of Rheumatology and Internal Medicine
11. Department of Internal Medicine and Metabolic Diseases
12. Department of Medical Simulation
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| **E-mail of departments** | 1. alergol@umb.edu.pl - Clinical Department of Allergic and Internal Diseases
2. klpluc@edu.pl - First Department of Lung Diseases and Tuberculosis lukasz.minarowski@umb.edu.pl - Second Department of Lung Diseases and Tuberculosis
3. endodiab@umb.edu.pl - Department of Endocrinology, Diabetology and Internal Medicine
4. gastro@umb.edu.pl; jaroslaw.daniluk@umb.edu.pl - Department of Gastroenterology and Internal Medicine
5. hem@umb.edu.pl - Department of Hematology
6. bozena.sobkowicz@umb.edu.pl - Department of Cardiology with OIOK Department of Invasive Cardiology
7. nefro@umb.edu.pl - I Department of Nephrology with Dialysis Unit
8. nefrologia2@umb.edu.pl - Second Department of Nephrology and Hypertension with Dialysis Unit
9. reum@umb.edu.pl - Department of Rheumatology and Internal Medicine
10. klinmet@umb.edu.pl - Department of Internal Medicine and Metabolic Diseases
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| **Faculty of** | Medicine with Division of Dentistry and Division of Medical Education in English |
| **Name** **of a field of study** | Faculty of Medicine |
| **Level of education** | *First degree studies, Uniform master’s degree studies* |
| **Form of study** | **full time □ part time □** |
| **Language of instruction** |  English □ Polish □ |
| **Type of course** | **obligatory** □ facultative □ |
| **Year of study / Semester** | I □ II □ III □ IV□ V□ VI□ | 1 □ 2 □ 3 □ 4 □ 5□ 6□ 7□ 8□ 9□ 10□ 11 □ 12□ |
| **Introductory courses with preliminary requirements** | *Implementation of learning outcomes in terms of knowledge, skill sets and competencies of the previous years of study in the field of Internal Medicine* |
| **Number of didactic hours with specification of forms of conducting classes** | **3rd Year:**Total : 145h , including: lectures- 37 h, seminars-15h, classes -93 h; Introduction to Internal medicine: lectures- 20 h, classes - 60 h; Allergology: lectures - 6 h, seminars -5h, classes – 11hPulmonology: lectures – 11h, seminars – 10h, classes – 22 h **4th Year :**Total : 150 h, including: lectures -30h, seminars -30h, classes -70h; electives *-20h*Gastrology: lectures -15h, seminars -15h, classes -35h ; electives *-20h*Cardiology: lectures -15h, seminars -15h, classes -35h; electives *-20h***5th Year:**Total :140h including: lectures -34h, seminars -32h, classes – 74h; electives *-20h*Endocrinology / diabetology: 51h, including: lectures -13h seminars – 11h, classes-27hHematology: 29h, including: lectures -7h seminars -7h, classes -15hNephrology: 30h, including: lectures -7h, seminars -7h, classes -16hRheumatology: 30h including: lectures -7h, seminars -7h, classes -16h**6th Year:**Total: 240h, including: 80h Practical solving clinical problems (according to schedule), 160h – Other classes156h in Internal Medicine Departments listed below according to schedule 1. Clinical Department of Allergic and Internal Diseases
2. Department of Endocrinology, Diabetology and Internal Medicine
3. Department of Gastroenterology and Internal Medicine
4. Department of Hematology
5. Department of Cardiology with Department of Intensive Cardiac Care, Department of Invasive Cardiology
6. I Department of Nephrology with Dialysis Unit
7. Second Department of Nephrology and Hypertension with Dialysis Unit
8. Department of Rheumatology and Internal Medicine
9. Department of Internal Medicine and Metabolic Diseases
10. Department of Medical Simulation 4h (according to the schedule)
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| **Assumptions and aims** **of the course** | Each student should acquire knowledge of: performing a physical examination, prophylactic procedures in selected disease states, carrying out the medical records of the patient, student should know and understand the causes, symptoms, principles of diagnosis and therapeutic treatment with respect to the most common internal diseases affecting adults, and their complications, electro cardiology basis.The student should learn about:* pathogenesis and genetic, environmental and epidemiological determinants of selected allergic diseases and lung diseases, principles of treatment and prophylactic actions in selected allergic and lung diseases.
* pathogenesis and genetic, environmental and epidemiological determinants of selected diseases of the gastrointestinal tract, principles of treatment in diseases of the gastrointestinal tract and prophylactic treatment in selected diseases of the gastrointestinal tract
* pathogenesis and genetic, environmental and epidemiological determinants of selected cardiovascular diseases, including: coronary heart disease, cardiac defects, endocarditis, myocarditis, pericarditis, heart failure (acute and chronic), arterial and venous diseases, hypertension: primary and secondary, pulmonary hypertension,
* the criteria of diagnosis, pathogenesis and treatment of diabetes; clinical presentation and management of the hypothalamic-pituitary system diseases, thyroid, parathyroid and adrenal glands diseases and life threatening states in endocrinology and diabetology.
* describe and explain the anatomy and physiology of the kidneys and the pathophysiology of complex condition,, describe and explain epidemiology, etiology, and preventive care from the perspective of chronic and acute kidney dysfunction and different nephropathies with complex treatments of rapidly progressive glomerulopathies, assess and analyze the risk of acute and late complications in connections with haemodialysis and peritoneal dialysis, peritoneal dialysis and other extracorporeal treatments, describe the basics of kidney transplantation
* pathogenesis and genetic, environmental and epidemiological conditions of selected rheumatic diseases, the principles of treatment in diseases of the musculoskeletal system and prophylactic treatment in selected diseases of the musculoskeletal system.
* pathogenesis and genetic, environmental and epidemiological conditions of myelo- and lymphoproliferative diseases, blood therapy, transplantation (bone marrow transplants), disorders of haemostasis (thrombophilia, congenital and acquired haemorrhagic diatheses), non-malignant disorders of the white and red blood cell systems.

The student should be able to: independently carry out a full and targeted physical examination, write medical history.The student should be able to: plan and interpret results of extra medical examinations, determine the diagnosis and treatment in the field of Internal Medicine diseases and perform differentiation diagnosis. |
| **Didactic methods** | * *providing knowledge in a form of lectures*
* *providing knowledge in a form of seminars*
* *providing knowledge regarding physical examination of the patient, with students' active participation.*
* *presentation of specialist endoscopic, ultrasound and radiology examinations.*
* *analysis of clinical cases in the form of medical history in written and oral form*
* *discussion*
* *presentation of clinical cases*
* *self-studying*
* *analysis of the literature*
* *practical classes*
* *practical classes with medical simulations*
* *consultations - according to information on the websites of individual Departments*
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| **Full name of the person conducting the course** | Didactic staff of the Internal medicine Departments : 1. Clinical Department of Allergic and Internal Diseases
2. First Department of Lung Diseases and Tuberculosis
3. Second Department of Lung Diseases and Tuberculosis
4. Department of Endocrinology, Diabetology and Internal Medicine
5. Department of Gastroenterology and Internal Medicine
6. Department of Hematology
7. Department of Cardiology Department of Invasive Cardiology
8. I Department of Nephrology with Dialysis Unit
9. Second Department of Nephrology and Hypertension with Dialysis Unit
10. Department of Rheumatology and Internal Medicine
11. Department of Internal Medicine and Metabolic Diseases
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| **Full name of the person responsible for teaching** | Course Coordinator of "Internal Medicine"” – prof. dr hab. Stanisław SierakowskiClinical Department of Allergic and Internal Diseases : prof. dr hab. Anna Bodzenta-ŁukaszykFirst Department of Lung Diseases and Tuberculosis : dr n. med Beata Panek-PenpickaSecond Department of Lung Diseases and Tuberculosis: dr n.med. Łukasz MinarowskiDepartment of Endocrinology, Diabetology and Internal Medicine : dr n med. Agnieszka AdamskaDepartment of Gastroenterology and Internal Medicine:dr n med. Jarosław DanilukDepartment of Hematology : dr n med. Ewa WasilewskaDepartment of Cardiology Department of Invasive Cardiology: dr hab. Małgorzata Knapp, dr n. med. Marta KamińskaI Department of Nephrology with Dialysis Unit : dr n med. Alicja Rydzewska-RosołowskaSecond Department of Nephrology and Hypertension with Dialysis Unit: dr hab. Edyta ZbrochDepartment of Rheumatology and Internal Medicine : dr n. med. Izabela DomysławskaDepartment of Internal Medicine and Metabolic Diseases : prof. dr hab. Irina Kowalska |

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| **Symbol and number of learning outcomes according to the teaching standards and other learning outcomes** | **Description of directional learning outcomes** | **Form of classes** | **Verification methods for achieving intended learning outcomes** |
| **Knowledge** |
| EW 1. | knows the environmental and epidemiological determinants of the most common diseases of Internal Medicine  | LecturesSeminarsClassesPractical solving clinical problems | *Summarizing methods e.g.,**-written exam (test - multiple choice question - MCQ)**Forming Methods:**- observation of the student's work**- evaluation of the activity in the classroom**- discussion in class**- case description* |
| EW 7**.** | knows and understands the causes, symptoms, principles of diagnosis and therapeutic treatment with respect to the most common internal diseases affecting adults and their complications: 1. cardiovascular diseases, including: coronary heart disease, cardiac defects, endocarditis, myocarditis, pericarditis, heart failure (acute and chronic), arterial and venous diseases, hypertension: primary and secondary, pulmonary hypertension,
2. respiratory system diseases, including: respiratory tract diseases, chronic obstructive pulmonary disease, bronchial asthma, bronchiectasis, cystic fibrosis, respiratory infections, interstitial lung disease, diseases of the pleura, mediastinum, obstructive and central sleep apnoea, respiratory failure (acute and chronic), respiratory tract malignancies,
3. gastrointestinal diseases, including oral, oesophageal, gastric and duodenal diseases, diseases of the pancreas, liver, bile ducts and gall bladder,
4. diseases of the internal secretion system, including hypothalamic and pituitary diseases, diseases of the thyroid, parathyroid, cortex and adrenal glands, ovaries and testes, neuroendocrine tumours, polyendocrine syndromes, various types of diabetes and metabolic syndrome: hypoglycaemia, obesity, dyslipidemia,
5. kidney and urinary tract diseases, including: acute and chronic renal failure, glomeruloneal renal and interstitial kidney diseases, renal cysts, renal calculus, urinary tract infections, urinary tract cancer, especially bladder cancer and renal cancer
6. hematopoietic diseases, including: bone marrow aplasia, anaemia, granulocytopenia and agranulocytosis, thrombocytopenia, acute leukaemia, myeloproliferative, myeloproliferative and myeloproliferative cancers, myelodysplastic syndromes, mature B and T lymphocytes malignancies, diatheses, thrombophilia, life-threatening conditions in haematology, blood disorders in diseases of other organs;
7. rheumatic diseases, including: connective tissue diseases, systemic vasculitis, spondylitis, bone metabolic diseases, especially osteoporosis and osteoarthritis, gout,
8. allergic diseases, including: anaphylaxis and anaphylactic shock, angioedema,
9. hydro-electrolyte and acid-base disorders: dehydration, over hydration, electrolyte disturbances, acidosis and alkalosis;
 | LecturesSeminarsClassesPractical solving clinical problems  |
| **Skils** |
| EU1. | takes medical history from an adult patient;  | ClassesPractical solving clinical problems | *Summarizing methods e.g.,**- practical exam**-the implementation of a specific task- the presentation**Forming Methods:**- observation of the student's work**- preliminary test**- evaluation of the students` activity during classes**- discussion during classes**- case description* |
| EU3. | carries out a full and targeted physical examination of an adult patient, | as above |
| EU7. | evaluates the general condition, state of consciousness and awareness of the patient, | as above |
| EU10. | evaluates the stage of puberty; | as above |
| EU12. | performs differential diagnosis of the most common illnesses  | as above |
| EU13. | assesses and describes the patient's somatic and psychological state; | as above |
| EU14 | recognizes the states of immediate danger to life;  | as above |
| EU16. | plans diagnostic, therapeutic and prophylactic procedures | as above |
| EU17 | analyses possible side effects of drugs and the interaction between them | as above |
| EU18 | proposes individualization of existing therapeutic guidelines and other treatments for ineffectiveness or contraindications to standard therapy; | as above |
| EU21 | defines states in which life expectancy, functional status, or patient preferences limit behaviour according to disease guidelines;  | as above |
| EU24. | interprets results of laboratory tests and identifies causes of abnormalities;  | as above |
| EU25 | uses nutritional treatment (including enteral and parenteral nutrition); | as above |
| EU29. | performs basic procedures and medical treatments, including 1. body temperature, pulse, non-invasive blood pressure measurement,
2. monitoring of vital signs with cardiomonitor, pulse oximetry,
3. spirometry, oxygen therapy, assisted and replacement ventilation
4. inserting an intubation tube,
5. intravenous, intramuscular and subcutaneous injection, peripheral vein cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood sampling
6. nasal, throat and skin swabbing, puncture of the pleural cavity
7. catheterization of the bladder in men and women, gastric aspiration, gastric lavage, enema,,
8. standard resting electrocardiogram with interpretation, electrical cardioversion and defibrillation
9. electrical cardioversion and heart's defibrillation
10. simple strip
11. tests and measurement of blood glucose;
 | as above |
| EU30. | supports the following procedures and medical treatments:1. transfusion of blood and blood products,
2. drainage of the pleural cavity,
3. puncture of the pericardial cavity,
4. puncture of the peritoneal cavity,
5. lumbar puncture,
6. fine needle biopsy,
7. epidermal tests, intradermal and scarification tests and interpreting their results
 | as above |
| EU32. | plans specialist consultations | as above |
| EU38. | carries out the medical records of the patient | as above |  |
| **Social competence** |
| K1 | Recognizes his own diagnostic and therapeutic limitations, educational needs, plans educational activity | Classes | *Summarizing methods e.g.*- continuous assessment by teachers (observation)*Forming methods, e.g.,*- observation of the student's work - discussion in class - opinions of patients, colleagues |
| K2 | Knows how to work in a team of professionals, in a multicultural and multinational environment |
| K3 | Implements the principles of professional colleagueship and cooperation with representatives of other professionals in the fields of health care |
| K4 | Obeys the doctor-patient privilege and patient‘s rights  |

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|  **ECTS** | 8+7+7+16 |
| **Student Workload** |
| **Form of activity** | **Number of hours to complete the activity** |
| **Classes that require the participation of a teacher** |
| 1. Realization of the course: lectures (according to the curriculum )
 | 139 |
| 1. Realization of the course: classes (according to the curriculum )
 | 396 |
| 1. Realization of the course: seminars; (according to the curriculum)
 | 10 |
| 1. Realization of the course: electives
 | 60 |
| 1. Participation in consultation
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|  | Total hours: 605 |
| **Student self-study** |
| 1. Preparation for the theoretical and practical classes (realization of projects, documentation, case description etc.)
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| 1. Preparation for tests/credits
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| 1. Preparation for an exam/final test-credit
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|  | Total hours: |

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| **Course contents of the course** |
| **INTRODUCTION TO INTERNAL MEDICINE – 3RD YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21 E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4  | **LECTURES**The interview and history taking strategyReview of systems p.I respiratory and cardiovascular systemsReview of systems p.II gastrointestinal, renal, reproductive, musculoskeletal and nervous systemsPhysical examination strategyGeneral examinationExamination of the head and neckExamination of the respiratory systemExamination of the heart and cardiovascular systemExamination of the abdomenExamination of the renal and reproductive systemExamination of the musculoskeletal and nervous systems**CLASSES***First week:*The interview and history taking strategyThe history and common symptoms of the cardiovascular and respiratory system diseasesThe history and common symptoms of the gastrointestinal system diseasesThe history and common symptoms of the renal, reproductive, musculoskeletal and nervous system diseasesCredit of the history taking *Second week*General examinationExamination of the head and neckExamination of the respiratory systemExamination of the heart and cardiovascular systemGeneral examination of the abdomenSpecific examination of the abdomenExamination of the renal and reproductive systemExamination of the musculoskeletal system*Third week* Review of history taking and physical examination. Independent examination of the patient by a student. Students’ clinical history: interview and physical examination, suggesting the laboratory tests and other examinations, suggesting the diagnosis, differential diagnosis, suggesting treatment and prognosis, observations, composing the epicrisis.1. Basic principles of electrocardiography in myocardial infaction and arhythmias. Demonstration of clinical cases, specific changes in physical examination. Credit of the classes theoretical, practical –physical examination by the.
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| **INTERNAL MEDICINE- ALERGOLOGY – 3RD YEAR**  |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21 E.U28 E.U32 E.U38K1, K2, K3, K4 | 1. Respiratory function tests (spirometry, provocation tests)
2. Allergological diagnostics (allergological tests, immunological diagnosis)
3. Cough and dyspnoea- main symptoms from respiratory tract.
4. Allergy markers in hematopoietic system disorders
5. Allergic and non-allergic asthma, other asthma phenotypes
6. Life threatening states caused by allergic reactions: anaphylactic shock, allergic reactions after insect stinging, angioedema
7. Non-invasive diagnostics for inflammation in respiratory tract diseases
8. Practical performance of diagnostics tests used in lung obstructive diseases and allergy-madiated diseases
9. The coexistance of asthma and chronic obstructive pulmonary disease
10. Acute and chronic urticaria, coexistance of urticaria and angioedema
11. Allergic rhinitis and allergic conjunctivitis
12. Atopic dermatitis
13. Contact dermatitis
14. Adverse drug reactions
15. Occupational allergies
16. Hypersensitivity pneumonitis
17. Eosinophilic bronchitis
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| **INTERNAL MEDICINE - PULMONOLOGY 3RD YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7 E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21 E.U24.E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4 | **LECTURES**1. Chronic obstructive pulmonary disease – etiology, symptoms, diagnostics and treatment (2x45min)
2. Pneumonia – etiology, symptoms, diagnostics and treatment (2x45min)
3. Lung cancer - etiology, symptoms, diagnostics and treatment (2x45min)
4. Interstitial lung dis eses - etiology, symptoms, diagnostics and treatment (2x45min)
5. Tuberculosis etiology - symptoms, diagnostics and treatment (3x45min)

**SEMINARS & CLASSES**1. Physical examination of respiratory system including special states (lung oedema, atelectasis, pneumothorax, abscess, emphysema, empyema)
2. Pulmonary function tests (spirometry, platysmography, DLCO)
3. Obstructive respiratory diseases: Chronic Obstructive Pulmonary Disease (COPD)
4. Community acquired pneumonia and nosocomical pneumonia. Classes and the bedside. Cases presentations. Collection of samples for laboratory examination.
5. Fluid in pleural cavity – etiology and reatment modalities, toracocentesis
6. Lung cancer and paraneoplasmatic syndromes. Cases presentations. Assisting in bronchoscopy.
7. Selected interstitial lung diseases - sarcoidosis, extrinsic alveolitis, idiopathic pulmonary fibrosis. Cases presentations. Pulmonary function testing lab classes. Imaging chest studies and broncho-alveolar lavage fluid usage. Chronic respiratory insufficiency – diagnosis and treatment modalities
8. Tuberculosis. Cases presentations. TB bacteriology. Imaging studies discussion.
9. Final test
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| **INTERNAL MEDICINE - CARDIOLOGY – 4TH YEAR**  |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21 E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4 | **LECTURES**1. Introductory lecture. Cardiovascular diseases. Epidemics of the 21st century. (45 min) The importance of non-invasive tests in the diagnosis of heart disease (45min)
2. Invasive methods of diagnosis and therapy of cardiovascular diseases (2 x 45 min)
3. Acute conditions in cardiology (2 x 45 min)
4. Acquired heart valve defects. Division, pharmacological treatment. Indications for invasive treatment (2 x 45 min)
5. Congenital heart defects in adults. Diagnosis and treatment. Indications for interventional treatment (45 min). Atrial fibrillation from theory to practice (45 min).
6. Classification and diagnosis of hypertension (45 min). Treatment of hypertension (45 min).
7. Infective endocarditis (45 min). Myocarditis, cardiomyopathies (45 min).

**SEMINARS & CLASSES**1. Normal electrocardiogram; examples of ecg records
2. Arrhythmias.
3. Conductibility disorders
4. Angina pectoris stable and unstable.
5. Myocardial infarction.
6. Electrotherapy of arrhythmias and conductibility disorders
7. Heart failure
8. Prevention of diseases of the cardiovascular system.
9. Examination
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| **INTERNAL MEDICINE - GASTROLOGY – 4TH YEAR** |
| **Symbol and number of learning outcomes** | Topics |
| E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21 E.U24E.U25E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4 | **LECTURES** 1. Gastroesophageal reflux disease
2. Peptic ulcer disease
3. Acute pancreatitis
4. Chronic pancreatitis

**SEMINARS**1. Liver cirrhosis

2. Gastric cancer3. Gastrointestinal bleeding4. Colorectal cancer 5. Pancreatic cancer6. Ulcerative colitis7. Crohn’s disease**CLASSES**Medical history and physical examination skills assessement.Topics: 1. Signs and symptoms of gastrointestinal diseases
2. Peptic ulcer disease – diagnosis and treatment
3. Nonalcoholic fatty liver disease and alcoholic liver disease
4. Choledocholithiasis diagnosis and treatment
5. Acute pancreatitis pathogenesis, clinical manifestations and treatment
6. Chronic pancreatitis
7. Diverticular disease. –..

Written exam (based on topics covered during lectures and classes). Final credits. |
| **INTERNAL MEDICINE ENDOCRINOLOGY AND DAIBETOLOGY – 5TH YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W7.E.U12E.U16.E.W1.E.U24.E.W1.E.W7.E.U32.E. U30K1, K2, K3, K4 | **LECTURES**1. Regulation and mechanisms of hormone secretion.
2. Diseases of the pituitary gland.
3. Pathogenesis, diagnosis and treatment of thyroid diseases.
4. Pathogenesis, diagnostics and treatment of adrenal diseases.
5. Regulation of calcium-phosphate homeostasis.
6. Obesity and its consequences.
7. Pathogenesis, diagnosis and treatment of type 1 diabetes.
8. Pathogenesis, diagnosis and treatment of type 2 diabetes.

**SEMIANRS AND CLASESS**1. Clinical picture, management and differential diagnosis in adrenal diseases - part I/II. (S/C)
2. Clinical picture, diagnostics and management of diseases of the hypothalamic-pituitary system. (S/C)
3. Clinical picture, diagnostics and management of thyroid diseases - part I/II. (S/C)
4. Thyroid ultrasound presentation and fine needle aspiration biopsy (FNA) of the thyroid gland. (C)
5. Diagnostic criteria and glucose control for diabetes mellitus and (S/C)
6. Non-pharmacological and pharmacological treatment of type 2 diabetes. (S/C)
7. Practical insulin therapy - insulin therapy algorithms, presentation of insulin pens, insulin pumps and glucometers - part I/II. (S/C)
8. Discussion of endocrine diseases based on selected clinical cases. (C)
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| **INTERNAL MEDICINE - NEPHROLOGY – 5TH YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7E.U1E.U3 E.U12 E.U16 E.U17 E.U18 E.U24E.U29 E.U32 E.U38K1, K2, K3, K4 | **LECTURE**S1. Diagnostics of kidney diseases
2. Glomerular diseases
3. Acute kidney injury
4. Interstitial kidney diseases
5. Kidney and arterial hypertension

**SEMINARS AND CLASSES**1. Water-electrolyte and acid-alkaline disorders in nephrology
2. Chronic Kidney Disease (CKD)
* causes, symptoms, examination, investigations
* complications of CKD
* management of CKD, renoprotection
1. Acute kidney injury (AKI)
* prernal,postrenal, acute tubular necrosis
* acute cortical necrosis
* contrast nephropathy
* hepatorenal syndrome
1. Glomerular Diseases
* nephrotic syndrome
* nephritic syndrome
* rapidly progressive glomerulonephritis (RPGN)
1. Renal Replacment Therapy
* hemodialysis
* peritoneal dialysis
* continuous methods
1. Tubo-interstitial nephritis
* urinary tract infection
* hypertension and the kidney
1. Kidney transplantation
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| **INTERNAL MEDICINE - HEMATOLOGY – 5TH YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21E.U24E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4 | **LECTURES**1. Anemia - diagnostics, treatment.
2. Non-Hodgkin's lymphomas - diagnostics, treatment.
3. Acute leukemias - diagnostics, treatment
4. Congenital and acquired coagulation disorders
5. Myeloproliferative diseases - diagnostics, treatment

**SEMINARS and CLASSES** 1. Multiple myeloma.
2. Non-Hodgkin's lymphomas.
3. Acute leukemias: myeloid and lymphoblastic.
4. Myeloproliferative diseases: chronic myeloid leukemia, polycythemia vera, essential thrombocythosis, idiopathic myelofibrosis.
5. Anemias.
6. Haemorrhagic diathesis: vascular, plasmatic, and thrombocythopenic.
7. Venous thromboembolism.
8. Anticoagulant, thrombolytic, antiplatelet therapy.
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| **INTERNAL MEDICINE - RHEUMATOLOGY – 5TH YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
| E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U24 E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4  |

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| **LECTURE** |
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| 1. Introduction to rheumatology
	1. epidemiology of rheumatic diseases
	2. etiopathogenesis of rheumatic diseases
	3. symptomatology of rheumatic diseases
	4. general rules of the treatment of rheumatic diseases
2. Chronic arthritis
	1. peripheral arthritis
	2. peripheral
	3. axial arthritis
	4. other forms of RA
	5. Lyme’s disease
3. Reactive and non-infectious arthritis
4. Metabolic arthritis
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**SEMINARS AND CLASESS**, 1. Examination of the musculoskeletal system
2. General characteristics of rheumatic diseases. Implications of pathogenic changes in the clinical picture
3. Osteoarthritis. Clinical examination, diagnosis, differentiation, prognosis, treatment.
4. Gout. Clinical examination, diagnosis, differentiation, prognosis, treatment.
5. Osteoporosis. Clinical examination, diagnosis, differentiation, prognosis
6. Chronic arthritis: Rheumatoid arthritis, Seronegative
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| **INTERNAL MEDICINE – 6TH YEAR** |
| **Symbol and number of learning outcomes** | **Topics** |
|  E.W1E.W7E.U1E.U3 E.U7 E.U12 E.U14 E.U16 E.U17 E.U18 E.U21 E.U28 E.U29 E.U30 E.U32 E.U38K1, K2, K3, K4E.W7, EW13, E.W14, E.W37, E.W39E.U1, E.U3, E.U7, E.U12, E.U13, E.U14, E.U15, E.U16, E.U24,E.U29, E.U32, E.U33, E.U34, E.U38 | Diagnosis and treatment in internal medicine- classes at Internist Clinics according to the schedule between 8.00-11.001. Patient with dyspnoea - diagnosis and treatment
2. Differential diagnosis of edema
3. Abdominal pain - diagnosis and treatment
4. Chest pains - diagnosis and treatment
5. Patient with fever of unknown origin - differential diagnosis
6. A patient with diarrhea - differential diagnosis and treatment
7. Patient with anemia - differential diagnosis and treatment

Practical solving of clinical problems – classes according to the schedule between 11.30-13.00 **ALLERGOLOGY**1. Diagnostic problems in chronic urticaria
2. Life threatening states in allergology (anaphylactic shock, angioedema)
3. Diagnostic and therapeutic procedures in patients with severe and difficult asthma
4. Hymenoptera and non-hymenoptera venoms allergy

**LUNG DISEASES**1. Diagnostic and treatment difficulties in interstitial lung diseases, including allergic alveolitis, sarcoidisis and idiopathic pulmonary fibrosis
2. Recurrent infection of lower airways.
3. Circulatory decompenstation and arrythmias as complicatiions in pneumonology.
4. Non-invasive mechanical ventillation in exacerbation of chronicrespiratory insufficiency.
5. Single lung nodules – improtant diagnostics problem.
6. Shift in the clinical Picture of tuberculosis and latent tuberculosis.
7. Sleep disordered breathing.

**CARDIOLOGY**1. Acute and chronic heart failure
2. Hypertension.
3. Infective endocarditis.
4. Acquired heart valve defects
5. Electrotherapy of heart diseases
6. Invasive treatment of heart diseases

**GASTROENTEROLOGY**1. The causes and treatment strategies of dysphagia.
2. Analysis of endoscopic images of the gastrointestinal tract in the clinical setting.
3. Anaemia in the course of gastrointestinal disorders – analysis of clincal cases.
4. Common causes, differential diagnosis and treatment of intra and extrahepatic cholestasis.
5. Clinical pictures of portal hypertension (ascites, SBP, hepato-renal syndrome).
6. Altered bowel habits in certain clinical conditions (diverticulosis, IBD, IBS).

**ENDOCRINOLOGY AND DIABETOLOGY**1. Thyroiditis.
2. Thyroid cancer.
3. Life threatening states in endocrinology
4. Acute complications of diabetes.
5. Thyroid orbitopathy

**NEPHROLOGY**1. Cardio-renal syndrome.
2. Diabetic kidney disease.
3. Monoclonal gammapathy of renal significance - MGRS.
4. Lupus nephritis.
5. Polycystic kidney disease - ADPKD.
6. Haemolytic-uraemic syndrome – HUS.

**HEMATOLOGY**1. Differential diagnosis of anemia
2. Thrombophilia as an interdisciplinary problem.
3. Suspicion of the proliferative disease- management of the patient.
4. Different aspects of the bone marrow transplantation

**RHEUMATOLOGY**1. Systemic sclerosis and scleroderma-like syndromes
2. Systemic lupus erythematosus - symptoms, complications, diagnosis, treatment
3. Systemic vasculitis-picture of multiorgan diseases
4. Polymialgia rheumacica and differential diagnosis of fevers of unknown origin
5. Treatment of patients with chronic arthritis refractory to standard therapies
6. Unusual forms of arthritis-Still's disease in adults
7. Sjógren's syndrome
8. Polymyositis and dermatomyositis

**METABOLIC DISEASES**1. Eating disorders-anorexia nervosa, bulimia
2. Obesity - clinical aspects
3. Diagnosis and treatment of dyslipidemia

**DEPARTMENT OF MEDICAL SIMULATIONS – 6TH YEAR OF MEDICAL FACULTY**1. Dyspnea in adults – symptoms, differential diagnosis, treatment (2 hours).
2. The use of psychoactive substances, poisoning in adults – symptoms, differential diagnosis, treatment (1 hour).
3. Shock (including anaphylaxis) – symptoms, differential diagnosis, treatment (1 hour).

We will run together high-fidelity medical simulation scenarios in internal medicine. So You are going to be the team member (e.g. physician, nurse) who will work on the Emergency Department / Medical Unit at the hospital. The students are going to act as the medical team members with an adult with some severe complaints in a real time. After the scenario You are going to discuss the case with Your tutor. This is called 'debriefing' and it is constructed as the positive (not negative) emotional feedback. After three scenarios we will conclude our efforts and look for future perspectives in Your medical education. Each class consists of checking the students’ knowledge, then – running the scenario and discussion. |

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| **Obligatory textbook:** |
| L.S. Bickley – Bates’ Guide to Physical ExaminationHarrison’s Principles of Internal Medicine |

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| **Criteria for assessing the learning outcomes achieved and the form and conditions for obtaining the credit for the course:** |
| **III-V year**1. Method of passing individual classes - oral (discussion during classes, observation of student work, assessment of activity during classes)
2. Method of passing individual seminars - oral
3. Method and form of completing all didactic classes in a particular unit - written test (multiple choice test) and passing the history of the disease (implementation of a specific task, multimedia presentation)
4. The block begins with checking the knowledge of physical examination in the field of Internal Medicine - a form of checking for the decision of the Departments.
5. Preparation to classes is marked by activity in the classroom (analysis of clinical cases within the discussed issues).
6. Preparation of the medical history during the exercise block.
7. Credit of seminars - based on discussion and participation in the seminar.
8. At the end of the block there is a test of knowledge from the material being carried out (subjects including seminars, classes and lectures). The most common form of checking knowledge is test completion. In the case of fail – correction test during 14 days after finishing block

Absence not confirmed by the sick note – the obligation to make up classes after consultation with the teacher. Only the students, who participate in all classes - can pass the classes. There is possibility to make up classes in the case of absence less than 30% of the classes.**VI year**The requirement for receiving credit from Internal Medicine course is:1. Participation in all courses (classes, practical solving of clinical problems). It is possible to have 1 justified absence on classes in semester (sick note or short dean’s leave no more than 7 days). More absences on classes requires taking up classes with another group. Absence on classes „Practical solving of clinical problems” requires taking up classes with another group or credit for the teacher.

**Rules for the examination of Internal Medicine****A. Initial arrangements**1. Internal Medicine exam on IV year consists of three parts: test exam, practical exam and oral exam. Passing test exam allowed to joining the next stages of the exam.
2. The requirement for passing the Internal Medicine exam is to obtain a positive grade for each part of the exam (test, practical and oral).

**B. Test exam**1. Test exam consists of 120 questions and takes place 120 minutes**.**
2. Test questions consist of all blocks from Internal Medicine according to syllabus from Internal Medicine from III-VI.
3. The test should be solved by itself. Contacting other people during the test exam, as well as all forms of using unauthorized support materials, multimedia, mobile phones and electronic means of communication will be resoulting in termination the test at the moment of violation of this point of the regulations and may result in disqualification of the examined person. Disqualification is equal to an unsatisfactory mark from the test.
4. Question sets are prepared in a way that guarantees objectivity and comfortable conduct of the exam and arranged so that persons sitting next to each other have a different order of questions or distractors.
5. Passing the exam means a positive results if examination person gets at least 60% correct answers (i.e. 72 points). Receiving less than 72 points means fail exam (mark 2) in the first term.
6. The results of test are available and presented no later than 3 working days from the date of the examination. In the announcement of the test results and all information related to the marks, all standard rules for the protection of personal data are guaranteed.
7. Points and grading system:
	1. ≤71 failed (2)
	2. 72- 80 satisfactory (3)
	3. 81-90 fairly good (3,5)
	4. 91-100 good (4)
	5. 101- 110 better than good (4,5)
	6. 111- 120 very good (5)

**C. Oral exam**1. The place of taking oral exams in Internal Medicine and the examiner's teacher are determined by drawing lots; these data are made available to students on the day ahead of the date of the test
2. Practical exam and oral exam, constituting an integral part of the Internal Medicine exam, take place after obtaining a positive result of the test.
3. Oral exam carried out by the Head of the Department or designated by the University teacher. Signature in exam card and/or the electronic protocol is carried out by teacher conducting an oral examination.
4. The final grade in Internal Medicine exam consists of the average of the results obtained from each part of the exam.

**D. Repeated exam**Repeated exam will be carried out in the same way to the exam in the first date.Exemption from the exam is not anticipated. |

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*(date and signature of the person preparing the syllabus)*

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 *(date and signature of the Head of the and (course coordinator)*

 *Department where the course is held)*