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|  | UNIVERSITY OF WARMIA AND MAZURY IN OLSZTYNFaculty of Medicine |
|  | **Course sylabus – part A** |
| **48SJ-INM78** | **INTERNAL MEDICINE 7/8** |
| **ECTS: 6.00**  |  |
| **CYCLE: 2024Z** |  |

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| **SUBJECT MATTER CONTENT****CLASSES**Cardiology (18h – 3 days) AK Classes I 1/ Myocardial revascularization a/ ST-Segment Elevation Acute Coronary Syndromes (STEACS) b/ Non-ST-Segment Elevation Acute Coronary Syndromes (NSTEACS) c/ Chronic Coronary Syndromes (CCS) 2/ Structural heart diseases a/ Atrial Septal Defect/Patent Foramen Ovale (ASD/PFO) b/ Left Atrial Appendage Closure (LAAC) c/ Balloon Aortic Valvuloplasty (BAV) d/ Transcatheter Aortic Valve Implantation (TAVI) Classes - II 1/ Electrotherapy a/ Implantable Pulse Generator (IPG) b/ Implantable Cardioverter-Defibrillator (ICD) c/ Cardiac Resynchronization Therapy (CRT) 2/ Electrophysiology a/ Electrophysiology Studies (EPS) b/ Cardiac Ablation Cardiology (12h-2 days) LG/AR 1. Chronic coronary disease 2.Acute coronary syndrome with and without ST segment elevation Pulmonology (30h – 5 days): AD Diagnostic tests in pulmonology: spirometry, plethysmography, bronchofiberscopy, polysomnography, ergospirometry, Principles of diagnosis in tuberculosis. 2. Imaging in respiratory system disease: X- ray, CT, HRCT of the chest. Lung ultrasound, PET. 3. Drugs in lung disease. 4. Allergies – urticaria, angioedema, anaphylaxis and anaphylactic shock. 5. Lung tumor diagnosis Gastrology (30h – 5 days x 6h 08.00-13.00)TA 1. Indigestion, anorexia and bulimia 2. Upper and lower digestive tract bleeding in internal diseases 3. Diagnostic strategy in gastrointestinal diseases 4. Dietary hints for malnourished patients 5. Diet in GI malignancies 6. Diarrhea and constipation – etiology, differentia diagnosis, treatment) 7. Demonstration of gastroeneterological procedures: esophageal varices ligation, gastrostomy, polipectomy, intrahepatic gradient measurements. 8. Demonstration and discussion of typical imaging procedures in different pathologies of GI tract and digestive system diseases 9. Clinical consequences of digestion abnormalities, malabsoprtion syndromem and malnutrition. 10. Primary and metastatic maligancies of digestive system.**TEACHING OBJECTIVE**Acquiring and consolidating knowledge about the etiology, pathophysiology, epidemiology, diagnosis and treatment of cardiac diseases , pulmonology and gastroenterology**DESCRIPTION OF THE LEARNING OUTCOMES OF THE COURSE IN RELATION TO THE DESCRIPTION OF THE CHARACTERISTICS OF THE SECOND LEVEL LEARNING OUTCOMES FOR QUALIFICATIONS AT LEVELS 6-8 OF THE POLISH QUALIFICATION FRAMEWORK IN RELATION TO THE SCIENTIFIC DISCIPLINES AND THE EFFECTS FOR FIELDS OF STUDY**:

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| **Symbols for outcomes related to the discipline:** | M/NM+++ |
| **Symbols for outcomes related to the field of study:**  | M/NM\_D.W17.+, M/NM\_E.W1.+, K.4.+, E.U16.+, K.5.+, E.U1.+, E.U30.+, E.U3.+, E.U17.+, K.2.+, M/NM\_E.W42.+, M/NM\_E.W7.+, M/NM\_E.W40.+, E.U29.+, K.3.+, E.U14.+, M/NM\_E.W41.+, M/NM\_E.W39.+, K.1.+, E.U13.+, E.U25.+, E.U32.+, E.U24.+ |

**LEARNING OUTCOMES:** **Knowledge:**

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| W1 – The student knows and understands the patient’s rights |
| W2 – The student knows and understands environmental and epidemiological conditions of the most frequent diseases |
| W3 – The student knows and understandsthe causes, symptoms, principles of diagnosing and treating the most frequently encountered internal diseases of adults and their complications: 1) cardiovascular diseases, including ischemic heart disease, heart defects, diseases of the endocardium, myocardium, and pericardium, heart insufficiency (acute and chronic), arterial and venous diseases, hypertension – primary and secondary, pulmonary hypertension, 2) respiratory diseases, including airways diseases, chronic obstructive pulmonary disease, bronchial asthma, bronchiectasis, cystic fibrosis, respiratory tract infections, interstitial respiratory diseases, pleural diseases, mediastinum diseases, obstructive sleep apnoea, respiratory distress (acute and chronic), bronchogenic carcinomas, 3) gastrointestinal diseases, including oral diseases, oesophageal diseases, stomach and duodenal diseases, intestinal diseases, pancreatic diseases, liver diseases, biliary tract and gallbladder diseases, 4) endocrine system diseases, including the hypothalamus and pituitary gland diseases, thyroid and parathyroid diseases, adrenal cortex and medulla diseases, ovary and testicle diseases and neuroendocrine tumours, polyglandular syndromes, diabetes of various types, and the metabolic syndrome – hypoglycaemia, obesity, dyslipidaemia, 5) kidney and urinary tract diseases, including acute and chronic kidney failures, glomerulus and interstitial kidney diseases, renal cysts, kidney stones, urinary tract infections, urinary tract carcinomas, especially of the urinary bladder and kidneys, 6) diseases of the haematopoietic system, including bone marrow aplasia, anaemia, granulocytopaenia and agranulocytosis, thrombocytopaenia, acute leukaemias, myeloproliferative and myeloproliferative-myelodysplastic neoplasms, myelodysplastic syndromes, neoplasms of mature lymphocytes B and T, haemorrhagic diatheses, thrombophilia, immediate life-threatening conditions in haematology, blood disorders in diseases of other organs, 7) rheumatic diseases, including systemic connective tissue diseases, systemic vasculitis, spondyloarthropathies, bone metabolic diseases, especially osteoporosis and osteoarthritis, gout, 8) allergic diseases, including anaphylaxis and anaphylactic shock, and angioedema |
| W4 – W4 – The student knows and understands the types of biological materials used in laboratory diagnostics and the rules of sampling the materials for testing |
| W5 – The student knows and understands the theoretical and practical foundations of laboratory diagnostics |
| W6 – The student knows and understands the potential and limitations of laboratory tests in emergencies |
| W7 – The student knows and understands the indications for monitored therapy |

**Skills:**

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| U1 – The student can take medical interview with an adult patient |
| U2 – The student can conduct complete and targeted physical examination of an adult patient |
| U3 – The student can assess and describe the patient’s somatic and mental condition |
| U4 – The student can recognise immediately life-threatening conditions |
| U5 – The student can plan diagnostic, therapeutic, and prophylactic procedures |
| U6 – The student can analyse the potential undesirable side effects of individual medicinal substances and interactions between them |
| U7 – The student can interpret the results of laboratory tests and identify the causes of deviations from the norm |
| U8 – The student can apply nutritional treatment, including enteral and parenteral feeding |
| U9 – The student can perform the basic medical procedures and therapies, including 1) taking the body temperature (both external and internal), the heart rate, the arterial pressure applying a non-invasive method, 2) monitoring the vital signs with the use of the patient monitor, pulse oximetry, 3) conducting spirometry tests, oxygentherapy, assisted and controlled ventilation, 4) inserting the oropharyngeal tube, 5) performing intravenous, intramuscular, and subcutaneous injections, cannulating peripheral veins, sampling peripheral venous blood, sampling blood for culture, sampling arterial blood, sampling arterialised capillary blood, 6) taking swabs from the nose, throat, and skin, 7) catheterising the urinary bladder in women and men, inserting the gastric tube, performing gastric lavage, enema, 8) taking standard electrocardiogram tests and interpreting them, performing electrical cardioversion and defibrillation, 9) taking simple strip tests and measuring glucose concentration in blood |
| U10 – The student can assist in the following medical procedures and operations: l) transfusing blood and blood product preparations, 2) performing pleural drainage, 3) performing pericardiocentesis, 4) performing paracentesis, 5) performing lumbar puncture, 6) performing thin needle biopsy, 7) performing epicutaneous tests, 8) performing intradermal and scarification tests and interpreting their results |
| U11 – The student can plan specialist consultations |

**Social competence:**

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| K1 – The student is ready to establish and maintain a deep and respectful contact with the patient, as well as show understanding for worldview and cultural differences |
| K2 – The student is ready to be guided by the good of the patient |
| K3 – The student is ready to respect medical confidentiality and patient rights |
| K4 – The student is ready to take action towards the patient based on ethical principles, with the awareness of social conditions and limitations resulting from the disease |
| K5 – The student is ready to perceive and recognize his own limitations and to self-assess deficits and educational needs |

**TEACHING FORMS AND METHODS:**

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| Classes(W1;W2;W3;W4;W5;W6;W7;U1;U2;U3;U4;U5;U6;U7;U8;U9;U10;U11;K1;K2;K3;K4;K5;):Practical exercises at the bedside of a patient in cardiology, gastroenterology and pulmonology |

**FORM AND CONDITIONS OF VERIFYING LEARNING OUTCOMES:**

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| Classes (Part in the discussion) - Credit based on attendance and activity in class - |

**BASIC LITERATURE:**

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| 1. Siegenthaler W, *Differential Diagnosis in Internal Medicine*, Wyd. Thieme, R. 2011 |
| 2. Kumar Clarks Saunders, *Clinical medicine*, Wyd. Elsevier, R. 2009 |
| 3. Boone N.A., Colledge N.R, *Davidson’s Principles Practice of Medicine*, Wyd. Churchill Livingstone Elsevier, R. 2010 |
| 4. Lee Goldman, MD and Andrew I.Schafer, *Goldman's Cecil Medicine*, Wyd. Saunders, R. 2012 |

**SUPPLEMENTARY LITERATURE**: |

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| **Legal acts specifying learning outcomes:** **672/2020****Disciplines:** medical sciences**Status of the course:**Obligatoryjny**Group of courses:**B - przedmioty kierunkowe**Code: ISCED** 0912**Field of study:**Medicine**Scope of education:****Profile of education:** General academic, Practical**Form of studies:** full-time**Level of studies**: uniform master's studies**Year/semester:** 6/11 |

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| **Types of classes:** Classes**Number of hours in semester:**Classes: 90.00**Language of instruction:**English**Introductory subject:** anatomy, histology, biochemistry, microbiology, physiology, and pathophysiology, internal medicine sem. V-X**Prerequisites:** Background of anatomy, physiology and pathophysiology, knowledge of intro to internal medicine (history taking and physical diagnosis), internal medicine sem. V-X |

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| **Name of the organisational unit conducting the course:**Katedra Kardiologii i Chorób Wewnętrznych**Person responsible for the realization of the course:**dr n. med. Piotr Cygański**e-mail:**  |

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| **Additional remarks:** - |

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**Detailed description of ECTS credits awarded - part B**

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The number of ECTS credits awarded consists of:

1. Contact hours with the academic teacher:

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| - participation in: Classes | 90.0 h |
| - consultation | 2.0 |

Total: 92.0 h.

2. Independent work of a student:

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| Preparation for classes | 58.00 h |

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Total: 58.0 h

contact hours + independent work of a student Total: 150.0 h

1 ECTS credit = 25-30 h of an average student’s work, number of ECTS credit = 150.0 h : 25.0 h/ECTS = 6.00 ECTS on average: 6.0 ECTS

- including the number of ECTS credits for contact hours with the direct participation of an academic teacher: 0,00 ECTS points,

- including the number of ECTS credits for hours of independent work of a student: