Załącznik nr 3 do uchwały nr 76/2020

STUDY PROGRAMME

The programme is valid from the academic year: 2020/2021

1. **FIELD OF STUDY**: MEDICINE IN ENGLISH
2. **ISCED CODE**: 09120 GROUP: Health and social care, NAME: Medicine
3. **MODE OF STUDY**: FULL-TIME
4. **NUMBER OF SEMESTERS**: 12
5. **PROFESSIONAL TITLE GIVEN TO GRADUATES**: MEDICAL DOCTOR
6. **PROFILE**: GENERAL ACADEMIC
7. **AREA OF SCIENCE**: MEDICAL AND HEALTH SCIENCE
8. **ACADEMIC DISCIPLINE**: (for the field assigned to more than one disciplines, the main discipline where more than 50% of ECTS points will be given should be pointed and number of ECTS points for each disciples assigned should be specified): MEDICAL SCIENCE (main discipline) – 332,1 ECTS which is 90% of all points; HEALTH SCIENCE (secondary discipline) – 36,9 ECTS which is 10% af all points
9. **Number of ECTS points necessary to graduate from studies: 369.**
    1) number of ECTS points wchich should be gained in the courses conducted directly by academic teachers or other people conducting classes: **232**.
    2) number of ECTS points wchich should be gained in the courses related to scientific activities performed in the discipline or diciplines to which the field of study is aasigned (not more that 50% of all ECTS points): **348**.
    3) number of ECTS points wchich student gains in elective courses (at least 3% of all ECTS points): **48**.
    4) number of ECTS points which student has to gain in the courses of humanities or social sciences, not less than 50% of ECTS points – in case of the field of studies assigned to disciplines otther than humanities or social sciences: **20**.
10. **Total number of hours in the study programme: 9387 – including courses conducted directly by academic teachers or other people conducting classes: 5807 (including 500 hours of e-learning)**.
11. **The concept and outcomes of education** (including description of the graduate's profile):

Medical studies last 6 years (12 semesters). The graduates of medical faculty are give the diploma and professional title of medical doctor.

After graduating, students take the Final Medical Examination and after passing it, they are licensed to practice medicine and undertake work in public and private healtcare units, research and academic centres, councelling institutions and institutions dealing with disseminating knowledge in the field of health-promotion as well as in medical universities' clinics.

Finishing medical studies enables graduates to upgrade qualifications, knowledge and skills during medical specializations, supplementary and training courses within various medical fields and to continue studies on the third degree studies (doctoral).

While practicing medical profession, a person with required qualifications deals with providing healt service, in particular: examining health condition, diagnosing and preventing diseases, treating and rehabilitating patients, providing medical advice, as well as giving medical opinions and certificates in the scope of one's specialization.

Within the scope of knowledge, the graduate knows and understands: 1) development, structure and functions of the human body in normal and pathological conditions; 2) symptoms and course of diseases; 3) diagnostic and therapeutic procedures in specific diseases; 4) ethical, social and legal conditions in practicing medical profession as well as healt-promotion principles, and his/her knowledge is based on scientific evidence; 5) scientific research methods.

Within the scope of abilities, the graduate knows how to: 1) recognize medical problems and determine priorities in medical procedures; 2) recognioze life-threatening states and those which require immediate medical intervention; 3) plan diagnostic prodcedures and interpret their results; 4) implement proper and safe therapeutic procedures and predict their results; 5) plan own educational activity and constantly improve and update knowledge; 6) inspire learning proces of ohers; 7) communicate with the patient and their family in the atmosphere of trust with the consideration of the patient's needs and communicate bad information; 8) communicate with colleagues and share knowledge; 9) critically evaluate scientific research results and explain conclusions properly.

Within the scope of social competence, the graduate is able to: 1) establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences; 2) do what is right for the patient; 3) respect medical confidentiality and patient's rights; 4)take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness; 5) recognize his/her own limitations and self-evaluate educational deficiencies and needs; 6) promote healthy lifestyle; 7) use reliable information sources; 8) conclude on the basis of own surveys and observations; 9)introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment; 10) give opinions concerning various aspects of professional activity; 11) take responsibility for own decisions made during professional activities including own safety and safety of other people.

12. LEARNING OUTCOMES

Symbol	Learning outcomes according to Ordinance of the Ministry of Science and Higher Education cincerning learning standards for medicine[1]	After graduating form studies:	Reference to the field learning outcomes:	
			universal characteristics for a given level of the Polish Qualifications Framework (the Act on the IQS)[2]	secondary characteristics of learning outcomes for qualifications at levels 6-7 of the Polish Qualifications Framework (Ordinance of the MSHE)[3]
within the scope of **KNOWLEDGE**, the graduate knows and understands:				
LEK_A.W1.	A.W1.	anatomical, histological and embryological terminology in Polish and English;	P7U_W	P7S-WG
LEK_A.W2.	A.W2.	human anatomy topographically (upper and lower limb, chest, abdomen, pelvis, back, neck and head) and functionally (respiratory system, digestive system, urogenital system, nervous system and sense organs, integumentary system);	P7U_W	P7S-WG
LEK_A.W3.	A.W3.	topographical relations between individual organs;	P7U_W	P7S-WG
LEK_A.W4.	A.W4.	basic cellular structures and their functional specifications;	P7U_W	P7S-WG
LEK_A.W5.	A.W5.	microarchitecture of tissues, extracellular matrix and organs;	P7U_W	P7S-WG
LEK_A.W6.	A.W6.	the stages of development of human embryo, structure and function of fetal membranes and placenta as well as the stages of development of individual organs and the influence of harmful agents on human embryo and fetus (teratogenic agents);	P7U_W	P7S-WG
LEK_B.W1.	B.W1.	the water and electrolyte balance in biological systems;	P7U_W	P7S-WG
LEK_B.W2.	B.W2.	acid-base homeostasis and mechanisms of buffers and their significance in systemic homeostasis;	P7U_W	P7S-WG
LEK_B.W3.	B.W3.	the concepts of: solubility, osmotic pressure, isotonia, colloidal solutions and Gibbs-Donnan effect;	P7U_W	P7S-WG
LEK_B.W4.	B.W4.	basic reactions of organic and non-organic compounds in water solutions;	P7U_W	P7S-WG
LEK_B.W5.	B.W5.	the physical laws describing the flow of fluids and factors affecting the vascular resistance of blood flow;	P7U_W	P7S-WG
LEK_B.W6.	B.W6.	natural and artificial sources of ionizing radiation and its interaction with the matter;	P7U_W	P7S-WG
LEK_B.W7.	B.W7.	the physical, chemical and molecular basis of how the organs of the senses function;	P7U_W	P7S-WG
LEK_B.W8.	B.W8.	the physical basis of non-invasive imaging methods;	P7U_W	P7S-WG
LEK_B.W9.	B.W9.	the physical principles of selected therapeutic techniques, including ultrasound and radiation;	P7U_W	P7S-WG

LEK_B.W10.	B.W10.	the structure of simple organic compounds included in the macromolecules present in the cells, extracellular matrix and body fluids;	P7U_W	P7S-WG
LEK_B.W11.	B.W11.	the structure of lipids and polysaccharides and their functions in the cellular and extracellular structures;	P7U_W	P7S-WG
LEK_B.W12.	B.W12.	the protein primary, secondary, tertiary and quaternary structures as well as the post-translational and functional protein modifications and their significance;	P7U_W	P7S-WG
LEK_B.W13.	B.W13.	the functions of nucleotides in the cell, RNA and DNA primary and secondary structure as well as chromatin structure;	P7U_W	P7S-WG
LEK_B.W14.	B.W14.	the functions of the human genome, transcriptome and proteome and basic methods used in their study, the processes of replication, repair and recombination of DNA, transcription and translation and degradation of DNA, RNA and proteins as well as the concept of the regulation of gene expression;	P7U_W	P7S-WG
LEK_B.W15.	B.W15.	basic catabolic and anabolic pathways, methods of their regulation and the influence of genetic and environmental factors;	P7U_W	P7S-WG
LEK_B.W16.	B.W16.	the metabolic profiles of basic organs and systems;	P7U_W	P7S-WG
LEK_B.W17.	B.W17.	the ways of communication between cells as well as between the cell and the extracellular matrix and signal transduction pathways in the cell as well as examples of disorders in these processes leading to the development of tumors and other diseases;	P7U_W	P7S-WG
LEK_B.W18.	B.W18.	the processes such as: cell cycle, proliferation, differentiation and cell aging, apoptosis and necrosis, and their importance for the functioning of the body;	P7U_W	P7S-WG
LEK_B.W19.	B.W19.	basic problems concerning stem cells and their use in medicine;	P7U_W	P7S-WG
LEK_ B.W20.	B.W20.	basic principles of stimulation and conduction in the nervous system and higher nervous functions, as well as physiology of striated and smooth muscles and functions of blood;	P7U_W	P7S-WG
LEK_B.W21.	B.W21.	the functions and mechanisms of regulation of all organs and systems of the human body, including the circulatory, respiratory, digestive, and urinary systems as well as skins and the dependence between them;	P7U_W	P7S-WG
LEK_B.W22.	B.W22.	the reproductive function in women and men;	P7U_W	P7S-WG
LEK_B.W23.	B.W23.	the mechanisms of aging;	P7U_W	P7S-WG
LEK_B.W24.	B.W24.	the basic quantitative parameters describing the performance of individual systems and organs, including the range of norms and demographic factors affecting the value of these parameters;	P7U_W	P7S-WG
LEK_B.W25.	B.W25.	the relationship between the factors that disrupt the equilibrium of biological processes and physiological and pathophysiological changes;	P7U_W	P7S-WG
LEK_B.W26.	B.W26.	the basic computer and biostatistical tools used in medicine, including medical databases, spreadsheets and basics of computer graphics;	P7U_W	P7S-WG
LEK_B.W27.	B.W27.	the basic methods of statistical analysis used in population and diagnostic studies;	P7U_W	P7S-WG
LEK_B.W28.	B.W28.	the possibilities of modern telemedicine as a tool to support the work of a physician;	P7U_W	P7S-WG
LEK_B.W29.	B.W29.	the principles of conducting scientific research, observational and experimental as well as in vitro studies aimed at the development of medicine;	P7U_W	P7S-WG
LEK_C.W1.	C.W1.	the basic concepts of genetics;	P7U_W	P7S-WG
LEK_C.W2.	C.W2.	the phenomenon of coupling and interaction of genes;	P7U_W	P7S-WG
LEK_C.W3.	C.W3.	normal human karyotype and various types of sex determination;	P7U_W	P7S-WG
LEK_C.W4.	C.W4.	the structure of chromosomes and the molecular mechanisms of mutagenesis;	P7U_W	P7S-WG

LEK_C.W5.	C.W5.	the principles of inheritance, inheritance of quantitative traits, independent inheritance of traits and inheritance of extranuclear genetic information;	P7U_W	P7S-WG
LEK_C.W6.	C.W6.	the genetics of blood groups and serological conflict in Rh system;	P7U_W	P7S-WG
LEK_C.W7.	C.W7.	the aberrations of autosomes and heterosomes causing diseases, including oncogenesis and cancer;	P7U_W	P7S-WG
LEK_C.W8.	C.W8.	the factors affecting primary and secondary genetic balance of the population;	P7U_W	P7S-WG
LEK_C.W9.	C.W9.	the foundation for the diagnosis of gene and chromosome mutations responsible for hereditary and acquired diseases, including cancer;	P7U_W	P7S-WG
LEK_C.W10.	C.W10.	benefits and risks arising from the presence in the ecosystem of genetically modified organisms (GMOs);	P7U_W	P7S-WG
LEK_C.W11.	C.W11.	genetic mechanisms, the acquisition of drug resistance by microorganisms and tumor cells;	P7U_W	P7S-WG
LEK_C.W12.	C.W12.	microorganisms, including pathogenic ones and those present in the normal flora;	P7U_W	P7S-WG
LEK_C.W13.	C.W13.	the epidemiology of infections with viruses, bacteria as well as fungal and parasites infections, including geographical range of their occurrence;	P7U_W	P7S-WG
LEK_C.W14.	C.W14.	the impact of abiotic and biotic (viruses, bacteria) environmental factors on the human body and population of people and their ways of penetration into the human body;	P7U_W	P7S-WG
LEK_C.W15.	C.W15.	the implications of the human body exposure to various chemical and biological factors and prevention principles;	P7U_W	P7S-WG
LEK_C.W16.	C.W16.	invasive human forms or stages of development of selected parasitic fungi, protozoa, helminths and arthropods, including geographical coverage of their occurrence;	P7U_W	P7S-WG
LEK_C.W17.	C.W17.	the functional principle of the parasite - host pair and the basic symptoms of illnesses caused by parasites;	P7U_W	P7S-WG
LEK_C.W18.	C.W18.	the symptoms of iatrogenic infections, routes of biological dispersal and pathogens causing changes in individual organs;	P7U_W	P7S-WG
LEK_C.W19.	C.W19.	the basics of microbiological and parasitological diagnosis;	P7U_W	P7S-WG
LEK_C.W20.	C.W20.	the basics of disinfection, sterilization and aseptic procedures;	P7U_W	P7S-WG
LEK_C.W21.	C.W21.	the basis for the development and the mechanisms of the immune system, including specific and non-specific mechanisms of humoral and cellular immunity;	P7U_W	P7S-WG
LEK_C.W22.	C.W22.	major histocompatibility complex;	P7U_W	P7S-WG
LEK_C.W23.	C.W23.	the types of hypersensitivity reactions, types of immunodeficiency and immunomodulation base;	P7U_W	P7S-WG
LEK_C.W24.	C.W24.	the issues concerning the immunology of cancer;	P7U_W	P7S-WG
LEK_C.W25.	C.W25.	the genetic basis for selection of the donor and recipient and the basics of the immunology of transplantation;	P7U_W	P7S-WG
LEK_C.W26.	C.W26.	the terminology used in anatomic pathology;	P7U_W	P7S-WG
LEK_C.W27.	C.W27.	basic mechanisms of tissue and cell damage;	P7U_W	P7S-WG
LEK_C.W28.	C.W28.	the clinical course of specific and non-specific inflammations and the regeneration processes of tissues and organs;	P7U_W	P7S-WG
LEK_C.W29.	C.W29.	the definition and pathophysiology of shock, with particular emphasis on the differentiation of shock and multiple organ failure’s causes;	P7U_W	P7S-WG
LEK_C.W30.	C.W30.	the etiology of hemodynamic disturbances, retrogressive and progressive changes;	P7U_W	P7S-WG
LEK_C.W31.	C.W31.	the problems concerning specific organ pathology, macroscopic and microscopic images and the	P7U_W	P7S-WG

		clinical course of pathological changes in various organs;		
LEK_C.W32.	C.W32.	the consequences of developing pathological changes for topographically adjacent organs;	P7U_W	P7S-WG
LEK_C.W33.	C.W33.	internal and external pathogens, both modifiable and non-modifiable;	P7U_W	P7S-WG
LEK_C.W34.	C.W34.	clinical forms of most common diseases of various systems and organs, metabolic diseases and disorders of water-electrolyte balance and acid-base balance;	P7U_W	P7S-WG
LEK_C.W35.	C.W35.	individual groups of drugs;	P7U_W	P7S-WG
LEK_C.W36.	C.W36.	the main mechanisms of the effects of drugs and their transformations in the organism depending on the age;	P7U_W	P7S-WG
LEK_C.W37.	C.W37.	the impact of disease processes on the metabolism and elimination of drugs;	P7U_W	P7S-WG
LEK_C.W38.	C.W38.	the basic principles of pharmacotherapy;	P7U_W	P7S-WG
LEK_C.W39.	C.W39.	the important side effects of drugs, including those resulting from their interaction;	P7U_W	P7S-WG
LEK_C.W40.	C.W40.	the problem of drug resistance, including multi-drug resistance;	P7U_W	P7S-WG
LEK_C.W41.	C.W41.	the indications for genetic testing performed to ensure the individualization of pharmacotherapy;	P7U_W	P7S-WG
LEK_C.W42.	C.W42.	the basic trends of therapy development, in particular the possibility of applying cell therapy, gene therapy as well as targeted therapy in specific diseases;	P7U_W	P7S-WG
LEK_C.W43.	C.W43.	the basic concepts of general toxicology;	P7U_W	P7S-WG
LEK_C.W44.	C.W44.	groups of drugs whose abuse can lead to poisoning;	P7U_W	P7S-WG
LEK_C.W45.	C.W45.	symptoms of the most common acute poisonings, including poisoning with alcohol, drugs and other psychoactive substances, heavy metals and selected classes of drugs;	P7U_W	P7S-WG
LEK_C.W46.	C.W46.	the basic principles of diagnostic poisoning;	P7U_W	P7S-WG
LEK_C.W47.	C.W47.	the influence of the oxidative stress on cells and its importance in the pathogenesis of diseases and in aging processes;	P7U_W	P7S-WG
LEK_C.W48.	C.W48.	the consequences of vitamins or minerals deficiency and their excess in the body;	P7U_W	P7S-WG
LEK_C.W49.	C.W49.	the enzymes involved in digestion, the mechanism of production of hydrochloric acid in the stomach, the role of bile, the course of absorption of the products of digestion;	P7U_W	P7S-WG
LEK_C.W50.	C.W50.	the consequences of inadequate nutrition, including long-term starvation, taking too large meals and the use of unbalanced diet as well as digestive disorders and malabsorption;	P7U_W	P7S-WG
LEK_C.W51.	C.W51.	the mechanism of hormones' functioning;	P7U_W	P7S-WG
LEK_D.W1.	D.W1.	the social dimension of health and disease, the impact of the social environment (family, networks of social relationships) and social inequality as well as socio-cultural differences on health and the role of social stress in health and self-destructive behaviour;	P7U_W	P7S-WG P7S_WK
LEK_D.W2.	D.W2.	social factors influencing behavior in sickness and in health, especially in chronic disease;	P7U_W	P7S-WM P7S_WK
LEK_D.W3.	D.W3.	forms of violence, explanatory models of violence in the family and in institutions, social determinants of various forms of violence and the role of the physician in the its diagnosis;	P7U_W	P7S-WG P7S_WK
LEK_D.W4.	D.W4.	social basics referring to health, sickness, disability and old age in relation to social attitudes, the social consequences of illness and disability as well as social-cultural barriers as well as the current concept of quality of life in a conditioned state of health;	P7U_W	P7S-WG P7S_WK
LEK_D.W5.	D.W5.	rules and methods of communication with the patient and his/her family which helps in creating empathic and trust-based relation;	P7U_W	P7S-WG P7S_WK
LEK_D.W6.	D.W6.	the importance of verbal and nonverbal communication in the process of communicating with patients and the notion of trust in the interaction with the patient;	P7U_W	P7S-WG P7S_WK

LEK_D.W7.	D.W7.	psychosocial consequences of hospitalization and chronic illness;	P7U_W	P7S-WG P7S_WK
LEK_D.W8.	D.W8.	the functioning of healthcare system entities and the social role of a physician;	P7U_W	P7S-WG P7S_WK
LEK_D.W9.	D.W9.	basic psychological mechanisms of human functioning in health and disease;	P7U_W	P7S-WG P7S_WK
LEK_D.W10.	D.W10.	the role of the family in the treatment process;	P7U_W	P7S-WG P7S_WK
LEK_D.W11.	D.W11.	the problems of patient's and his/her family's adaptation to the disease as a difficult situation as well as to events connected with the disease including dying and the family's grieving process;	P7U_W	P7S-WG P7S_WK
LEK_D.W12.	D.W12.	the role of stress in etiology and course of the disease and the mechanisms of coping with stress;	P7U_W	P7S-WG P7S_WK
LEK_D.W13.	D.W13.	the mechanisms, targets and methods of treatment for drug addiction;	P7U_W	P7S-WG P7S_WK
LEK_D.W14.	D.W14.	the rules of health promotion, its main tasks and the course of actions with the special consideration of the importance of the healthy lifestyle;	P7U_W	P7S-WG P7S_WK
LEK_D.W15.	D.W15.	the principles to motivate patients to follow healthy behaviors and how to communicate unfavorable prognosis to the patient;	P7U_W	P7S-WG P7S_WK
LEK_D.W16.	D.W16.	the main concepts, theories, principles and rules of ethics to serve as a general framework for the right interpretation and analysis of moral and medical issues;	P7U_W	P7S-WG P7S_WK
LEK_D.W17.	D.W17.	patients' rights;	P7U_W	P7S-WG P7S_WK
LEK_D.W18.	D.W18.	teamwork principles;	P7U_W	P7S-WG P7S_WK
LEK_D.W19.	D.W19.	cultural, ethnic and national determinants of human behavior;	P7U_W	P7S-WG P7S_WK
LEK_D.W20.	D.W20.	history of medicine, medicine of indigenous peoples and ancient civilizations, as well as characteristic features of medieval medicine;	P7U_W	P7S-WG P7S_WK
LEK_D.W21.	D.W21.	the features of modern medicine and its most important discoveries;	P7U_W	P7S-WG P7S_WK
LEK_D.W22.	D.W22.	the process of formation of new disciplines in the field of study – medical sciences and achievements of the leading representatives of Polish and world medicine;	P7U_W	P7S-WG P7S_WK
LEK_D.W23.	D.W23.	the foundations of evidence-based medicine;	P7U_W	P7S-WG P7S_WK
LEK_E.W1.	E.W1.	environmental and epidemiological conditions for the most common diseases;	P7U_W	P7S-WG P7S_WK
LEK_E.W2.	E.W2.	nutrition and vaccination principles for healthy and sick children including breastfeeding, immunization and carrying routine health checks for children;	P7U_W	P7S-WG P7S_WK
LEK_E.W3.	E.W3.	the causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most frequent diseases of children: 1) rickets, tetany, seizures, 2) heart defects, myocarditis, endocarditis and pericarditis, cardiomyopathy, arrhythmias , heart	P7U_W	P7S-WG P7S_WK

		failure, hypertension, syncope, 3) acute and chronic diseases of the upper and lower respiratory tract, congenital malformations of the respiratory system, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, angioedema, 4) anemia, bleeding disorders, conditions for marrow failure, cancer in children, including solid tumors typical of childhood; 5) acute and chronic abdominal pain, vomiting, diarrhea, constipation, gastrointestinal bleeding, peptic ulcer, nonspecific intestinal diseases, pancreatic diseases, cholestasis, liver disease, and other acquired diseases and congenital defects of the gastrointestinal tract, 6) urinary tract infections, congenital defects of urinary tract, nephrotic syndrome, kidney stones, acute and chronic renal failure, acute and chronic inflammation of kidney, systemic kidney disorders, urination disorders, gastroesophageal vesico-ureteral reflux disease, 7) growth disorders, diseases of the thyroid and parathyroid, adrenal disease, diabetes, obesity, disorders of maturation and gonadal function, 8) cerebral palsy, encephalitis and meningitis, epilepsy, 9) the most common childhood diseases, 10) genetic syndromes, 11) connective tissue diseases, rheumatic fever, juvenile arthritis, systemic lupus, skin and muscle inflammation;		
LEK_E.W4.	E.W4.	the problems of child abuse and sexual abuse, mental retardation, behavioral disorders - psychosis, addiction, eating disorders, and excretion in children;	P7U_W	P7S-WG P7S_WK
LEK_E.W5.	E.W5.	the basic ways of diagnosis and treatment of the fetus;	P7U_W	P7S-WG
LEK_E.W6.	E.W6.	the most common life-threatening conditions in children and the rules of conduct in these stat	P7U_W	P7S-WG P7S_WK
LEK_E.W7.	E.W7.	the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most frequent internal diseases occurring in adults and their complications: 1) cardiovascular diseases, including coronary heart disease, heart defects, endocarditis , myocarditis, pericarditis, heart failure (acute and chronic), arterial and venous diseases, primary and secondary hypertension, pulmonary hypertension, 2) respiratory diseases, including diseases of the respiratory tract, chronic obstructive pulmonary disease, bronchial asthma, bronchiectasis, cystic fibrosis, respiratory infections, interstitial lung disease, pleura, mediastinum, obstructive and central sleep apnea, respiratory failure (acute and chronic), respiratory cancers, 3) gastrointestinal diseases, including diseases of oral cavity, esophagus, stomach and duodenum, intestine, pancreas, liver, biliary tract and gall bladder, 4) endocrine diseases, including diseases of the hypothalamus and pituitary, thyroid, parathyroid, cortex and adrenal medulla, ovaries and testes as well as neuroendocrine tumors polyglandular syndromes, different types of diabetes and metabolic syndrome: hypoglycemia, obesity, dyslipidemia, 5), diseases of kidney and urinary tract, including acute and chronic renal failure, renal glomeruli diseases, cystic kidney disease, kidney stones, urinary tract infections, urinary tract tumor, particularly bladder cancer and kidney cancer,	P7U_W	P7S-WG P7S_WK

		6) hematological diseases, including bone marrow aplasia, anemia, neutropenia and agranulocytosis, thrombocytopenia, acute leukemia, myeloproliferative neoplasms and myelodysplastic -myeloproliferative disorders, myelodysplastic syndromes, cancer of mature B and T lymphocytes, bleeding disorders, thrombophilia, states of a direct threat to life in hematology, blood disorders, diseases of other organs, 7) rheumatic diseases, including systemic connective tissue disease, systemic vasculitis, inflammation of joints involving the spine, metabolic bone diseases, especially osteoporosis and degenerative diseases of the joints, gout, 8) allergic diseases, including: anaphylaxis and anaphylactic shock and angioedema, 9) water-electrolyte abnormalities and acid-base disorders: states of dehydration or fluid overload, electrolyte disorders, acidosis and alkalosis;		
LEK_E.W8.	E.W8.	the course and symptoms of aging, as well as the principles of comprehensive geriatric assessment and interdisciplinary care in relation to an elderly patient;	P7U_W	P7S-WG P7S_WK
LEK_E.W9.	E.W9.	the causes of and the basic distinction in the most common diseases that occur in the elderly and the rules of conduct in basic geriatric syndromes;	P7U_W	P7S-WG
LEK_E.W10.	E.W10.	the basic principles of pharmacotherapy of diseases of the elderly;	P7U_W	P7S-WG
LEK_E.W11.	E.W11.	the risks associated with hospitalization of the elderly;	P7U_W	P7S-WG
LEK_E.W12.	E.W12.	the basic principles of the organization of care for the older person and difficulties for the elderly caregiver;	P7U_W	P7S-WG P7S_WK
LEK_E.W13.	E.W13.	basic neurological syndromes;	P7U_W	P7S-WG
LEK_E.W14.	E.W14.	causes, symptoms, principles of diagnosis and therapeutic management of the most common diseases of the nervous system, including: 1) headaches: migraine, tension headaches and bands headaches and trigeminal neuralgia of nerve V, 2) vascular diseases of the brain, in particular the stroke, 3) epilepsy, 4) infection of the nervous system, in particular meningitis, Lyme disease, HSV encephalitis, neurotransmitter disorders, 5) dementia, in particular in Alzheimer's disease, frontotemporal dementia, vascular dementia, and other types of dementia, 6) diseases of the basal ganglia, in particular Parkinson's disease, 7) demyelinating diseases, in particular multiple sclerosis, 8) diseases of the neuromuscular system, in particular amyotrophic lateral sclerosis and sciatica, 9) cranio-cerebral trauma, in particular concussion;	P7U_W	P7S-WG P7S_WK
LEK_E.W15.	E.W15.	basic concepts of the pathogenesis of mental disorders;	P7U_W	P7S-WG
LEK_E.W16.	E.W16.	overall symptomatology of mental disorders and the principles of their classification according to the main classification systems;	P7U_W	P7S-WG
LEK_E.W17.	E.W17.	symptoms, principles of diagnosis and therapeutic process of most common mental illness, including: 1) schizophrenia, 2) affective disorders 3)neurosis and adjustment disorders,	P7U_W	P7S-WG P7S_WK

		4) eating disorders, 5) disorders associated with the use of psychoactive substances, 6) sleeping disorders;		
LEK_E.W18.	E.W18.	the principles of diagnosis and management in emergency psychiatry with the consideration of suicide problems;	P7U_W	P7S-WG P7S_WK
LEK_E.W19.	E.W19.	the characteristics of mental disorders and their treatment in children, youth and the elderly;	P7U_W	P7S-WG
LEK_E.W20.	E.W20.	psychiatric symptoms in the course of somatic diseases, their impact on the course of the main disease, prognosis and their treatment;	P7U_W	P7S-WG P7S_WK
LEK_E.W21.	E.W21.	human sexuality and fundamental disorders related thereto;	P7U_W	P7S-WG P7S_WK
LEK_E.W22.	E.W22.	provisions relating to mental health, with particular emphasis on the rules of admission to psychiatric hospitals;	P7U_W	P7S-WG P7S_WK
LEK_E.W23.	E.W23.	environmental and epidemiological conditions of the most common human cancers;	P7U_W	P7S-WG P7S_WK
LEK_E.W24.	E.W24.	the basis of early detection of cancer and principles of screening in oncology;	P7U_W	P7S-WG P7S_WK
LEK_E.W25.	E.W25.	the possibilities of modern cancer therapy including multimodal therapy, the prospects for cell and gene therapies and their adverse effects;	P7U_W	P7S-WG
LEK_E.W26.	E.W26.	the principles of combination therapies in oncology, algorithms for diagnostic and therapeutic procedures in most common human cancers;	P7U_W	P7S-WG P7S_WK
LEK_E.W27.	E.W27.	principles of diagnosis and therapeutic management of the most common problems of palliative medicine, including:	P7U_W	P7S-WG P7S_WK
LEK_E.W28.	E.W28.	the rules of palliative procedures for the terminally ill patients;	P7U_W	P7S-WG
LEK_E.W29.	E.W29.	the principles concerning the treatment of pain, including cancer and chronic pain;	P7U_W	P7S-WG
LEK_E.W30.	E.W30.	the concept of invalidity and disability;	P7U_W	P7S-WG
LEK_E.W31.	E.W31.	the role of medical rehabilitation and methods used in it;	P7U_W	P7S-WG P7S_WK
LEK_E.W32.	E.W32.	basic problems concerning prevention and the rules of conduct in case of occupational exposure to dangerous and harmful conditions;	P7U_W	P7S-WG P7S_WK
LEK_E.W33.	E.W33.	the rules of conduct in contagious disease diagnosis;	P7U_W	P7S-WG P7S_WK
LEK_E.W34.	E.W34.	the causes, symptoms, diagnosis and principles of therapeutic procedures in most common bacterial, viral and parasitic diseases, fungal infections, including pneumococcal infections, viral hepatitis, acquired immunodeficiency (AIDS), sepsis and hospital infections;	P7U_W	P7S-WG P7S_WK
LEK_E.W35.	E.W35.	basic characteristics, environmental and epidemiological conditions of most common diseases of human skin;	P7U_W	P7S-WG P7S_WK
LEK_E.W36.	E.W36.	the causes, symptoms, principles of diagnosis and therapeutic management of the most common sexually transmitted diseases;	P7U_W	P7S-WG P7S_WK
LEK_E.W37.	E.W37.	the causes, symptoms, principles of diagnosis and therapeutic management of the most common hereditary diseases;	P7U_W	P7S-WG P7S_WK
LEK_E.W38.	E.W38.	the causes, symptoms, principles of diagnosis and therapeutic management of common diseases and specific problems in general practice;	P7U_W	P7S-WG P7S_WK

LEK_E.W39.	E.W39.	the types of biological materials used in laboratory diagnosis and the rules for the collection of research material;	P7U_W	P7S-WG
LEK_E.W40.	E.W40.	theoretical and practical foundations for laboratory diagnosis;	P7U_W	P7S-WG
LEK_E.W41.	E.W41.	the capabilities and limitations of laboratory tests in emergency situations;	P7U_W	P7S-WG
LEK_E.W42.	E.W42.	indications for the implementation of monitoring therapy;	P7U_W	P7S-WG
LEK_E.W43.	E.W43.	basic pharmacoeconomic concepts;	P7U_W	P7S-WG
LEK_F.W1.	F.W1.	the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular: 1) acute and chronic diseases of the abdominal cavity, 2) diseases of the chest, 3) diseases of limbs and head, 4) bone fractures and injuries of organs;	P7U_W	P7S-WG P7S_WK
LEK_F.W2.	F.W2.	selected issues of pediatric surgery including traumatology and otorhinolaryngology, defects and acquired diseases being an indication for surgical treatment in children;	P7U_W	P7S-WG P7S_WK
LEK_F.W3.	F.W3.	eligibility rules for basic surgeries, invasive diagnostic and treatment procedures, principles concerning conducting these procedures and most common complications;	P7U_W	P7S-WG P7S_WK
LEK_F.W4.	F.W4.	perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation;	P7U_W	P7S-WG
LEK_F.W5.	F.W5.	postoperative treatment and analgesic therapy as well as post-operative monitoring;	P7U_W	P7S-WG
LEK_F.W6.	F.W6.	indications and rules for the application of intensive therapy;	P7U_W	P7S-WG
LEK_F.W7.	F.W7.	the current guidelines for cardiopulmonary resuscitation of the newborns, children and adults;	P7U_W	P7S-WG P7S_WK
LEK_F.W8.	F.W8.	the principles of the integrated National Medical Emergency System;	P7U_W	P7S-WG P7S_WK
LEK_F.W9.	F.W9.	female reproductive functions, disorders associated with them as well as diagnostic and therapeutic procedures concerning in particular: 1) the menstrual cycle and its disorders, 2) pregnancy, 3) physiological and pathological childbirth and postpartum, 4) inflammations and tumors in the genital organs, 5) birth control, 6) menopause, 7) basic methods of diagnostics and gynecological procedures;	P7U_W	P7S-WG P7S_WK
LEK_F.W10.	F.W10.	the issues concerning modern imaging tests, in particular: 1) radiological symptomatology of basic diseases, 2) instrumental methods and imaging techniques used to perform medical procedures, 3) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;	P7U_W	P7S-WG P7S_WK
LEK_F.W11.	F.W11.	eye diseases issues, in particular: 1) the causes, symptoms, principles of diagnosis and therapeutic management of the most common ophthalmic diseases,	P7U_W	P7S-WG P7S_WK

		2) ophthalmic complications of systemic diseases with their ophthalmological symptomatology and proper procedures in these cases, 3) surgical treatment in the diseases of the eye, 4) the basic groups of drugs used in ophthalmology, their side effects and interactions, 5) groups drugs used in general, with associated complications and ophthalmic contraindications and explains their mechanism;		
LEK_F.W12.	F.W12.	the issues of ENT, phoniatrics and audiology, including: 1) the causes, clinical course, treatment, complications, and prognosis of diseases of the ear, nose, paranasal sinuses, oral cavity, pharynx and larynx, 2) the disease of the facial nerve and selected structures in the neck, 3) the principles of diagnostic and therapeutic procedures in mechanical injuries of the ear, nose, throat and esophagus, 4) the rules of conduct in emergency situations in otorhinolaryngology, in particular in laryngeal breathlessness, 5) the principles of diagnostic and therapeutic procedures in the disorders of hearing, voice and speech, 6) the principles of diagnostic and therapeutic procedures in head and neck tumors;	P7U_W	P7S-WG P7S_WK
LEK_F.W13.	F.W13.	the causes, symptoms, principles of diagnosis and therapeutic procedures for the most frequent diseases of the central nervous system in terms of: 1) a swelling of the brain and its consequences, with particular emphasis on the states of emergency, 2) other forms of intracranial narrowness of their consequences, 3) cranio-cerebral injuries 4) vascular malformations of the central nervous system, 5) tumors of the central nervous system, 6) diseases of the spine and spinal cord;	P7U_W	P7S-WG P7S_WK
LEK_F.W14.	F.W14.	the problem of surgical transplantation, indications for the transplantation of irreducibly damaged organs and tissues, and related procedures;	P7U_W	P7S-WG P7S_WK
LEK_F.W15.	F.W15.	the rules concerning the diagnosis of brain death;	P7U_W	P7S-WG
LEK_F.W16.	F.W16.	treatment algorithm for particular accidental and post-traumatic hypothermia stages;	P7U_W	P7S-WG
LEK_G.W1.	G.W1.	the methods for assessing the health of individuals and populations, various disease classification systems and medical procedures;	P7U_W	P7S-WG P7S_WK
LEK_G.W2.	G.W2.	the methods for the identification and study of risk factors, the advantages and disadvantages of different types of epidemiological studies and measures indicating the presence of cause and effect;	P7U_W	P7S-WG P7S_WK
LEK_G.W3.	G.W3.	the epidemiology of infectious and chronic diseases, how to prevent them from occurring in various stages of the natural history of the disease and the role of epidemiological surveillance;	P7U_W	P7S-WG P7S_WK
LEK_G.W4.	G.W4.	the notion of public health, its objectives, tasks, as well as the structure and organization of the health system at the national and global levels as well as the impact of economic conditions on the possibility of health protection;	P7U_W	P7S-WG P7S_WK
LEK_G.W5.	G.W5.	legal regulations concerning the provision of health care services, patient's rights, labour law, basic principles of the physician's profession and the functioning of professional medical	P7U_W	P7S-WG P7S_WK

		association;		
LEK_G.W6.	G.W6.	basic legal regulations concerning the organization and financing of healthcare system, general health insurance and the principles of the organization of a medical business entity;	P7U_W	P7S-WG P7S_WK
LEK_G.W7.	G.W7.	legal obligations of the physician concerning the declaration of death;	P7U_W	P7S-WG P7S_WK
LEK_G.W8.	G.W8.	legal regulations and basic methods concerning medical experiments and conducting other medical research with the consideration of the basic method of data analysis;	P7U_W	P7S-WG P7S_WK
LEK_G.W9.	G.W9.	legal regulations concerning transplants, artificial procreation, abortion, beauty treatments, palliative care, mental illness;	P7U_W	P7S-WG P7S_WK
LEK_G.W10.	G.W10.	basic regulations concerning pharmaceutical law;	P7U_W	P7S-WG P7S_WK
LEK_G.W11.	G.W11.	legal regulations concerning medical confidentiality, maintaining medical records, criminal, civil and professional responsibility of the physician;	P7U_W	P7S-WG P7S_WK
LEK_G.W12.	G.W12.	the concept of violent and sudden death, as well as the difference between the injury and damage;	P7U_W	P7S-WG P7S_WK
LEK_G.W13.	G.W13.	legal basis and rules of conduct concerning medical examination of the corpse in the place of their disclosure and medico-legal examination of the corpse;	P7U_W	P7S-WG P7S_WK
LEK_G.W14.	G.W14.	the principles of medico-legal diagnosis and issuing opinions in cases involving infanticide and reconstruction of a road accident;	P7U_W	P7S-WG P7S_WK
LEK_G.W15.	G.W15.	the rules for issuing opinions as the expert appointed by the court in criminal cases;	P7U_W	P7S-WG P7S_WK
LEK_G.W16.	G.W16.	the rules of issuing medico-legal opinions concerning the ability to participate in legal procedures, biological effect and damage to health;	P7U_W	P7S-WG P7S_WK
LEK_G.W17.	G.W17.	the concept of a medical error, the most common causes of medical errors and the principle of giving opinions in such cases;	P7U_W	P7S-WG P7S_WK
LEK_G.W18.	G.W18.	the rules for collecting material for toxicological and hemogenetic studies;	P7U_W	P7S-WG P7S_WK
within the scope of **SKILLS**, the graduate knows how to:				
LEK_A.U1.	A.U1.	operate the optical microscope, also making use of immersion;	P7U_U	P7S_UW P7S_UK
LEK_A.U2.	A.U2.	recognize histological structures of organs, tissues, cells and cellular structures on the optical or histological microscope images, describe and interpret the structure and relations between the structure and the function;	P7U_U	P7S_UW P7S_UK
LEK_A.U3.	A.U3.	explain the anatomical basis for clinical examination;	P7U_U	P7S_UW P7S_UK
LEK_A.U4.	A.U4.	make conclusions as to the relationship between anatomical structures on the basis of intravital diagnostic tests, in particular in the field of radiology (plain images, tests using contrast agents, CT scans and magnetic resonance imaging);	P7U_U	P7S_UW P7S_UK
LEKA.U5.	A.U5.	use anatomical, histological and embryological terminology both in written and oral communication;	P7U_U	P7S_UW P7S_UK
LEK_B.U1.	B.U1.	use the knowledge of the laws of physics to explain the impact of external factors such as temperature, acceleration, pressure, electromagnetic fields and ionizing radiation on the body	P7U_U	P7S_UW P7S_UK

		and its elements;		
LEK_B.U2.	B.U2.	asses harmful ionizing radiation dose and adhere to the principles of radiation protection;	P7U_U	P7S_UW P7S_UK
LEK_B.U3.	B.U3.	determine molar and percentage concentration of compounds and the concentration of substances in isoosmotic solutions, both mono- and multi-component;	P7U_U	P7S_UW P7S_UK
LEK_B.U4.	B.U4.	determine the solubility of inorganic compounds, chemical substrate for the solubility of organic compounds, or lack thereof, and practical significance for nutrition and therapy;	P7U_U	P7S_UW P7S_UK
LEK_B.U5.	B.U5.	determine the pH of the solution and the effect of changes in the pH on the inorganic and organic compounds;	P7U_U	P7S_UW P7S_UK
LEK_B.U6.	B.U6.	envisage the development of biochemical processes depending on the state of the cells' energy;	P7U_U	P7S_UW P7S_UK
LEK_B.U7.	B.U7.	perform simple function tests evaluating the human body as a system stable regulation (stress tests) and interpret the figures on the basic physiological variables;	P7U_U	P7S_UW P7S_UK
LEK_B.U8.	B.U8.	apply basic laboratory techniques, such as qualitative analysis, titration, colorimetry, pehametry, chromatography, electrophoresis of proteins and nucleic acids;	P7U_U	P7S_UW P7S_UK
LEK_B.U9.	B.U9.	operate simple measuring instruments and evaluate the accuracy of measurements;	P7U_U	P7S_UW P7S_UK
LEK_B.U10.	B.U10.	use databases, including online ones and searches for necessary information using available tools;	P7U_U	P7S_UW P7S_UK
LEK_B.U11.	B.U11.	select appropriate statistical tests, performs basic statistical analyses, use suitable methods of presentation of results, interpret the results of the meta-analysis and carry out analysis of the likelihood of survival;	P7U_U	P7S_UW P7S_UK
LEK_B.U12.	B.U12.	explain the differences between prospective and retrospective studies, randomized and case/control studies and experimental research, and rank them according to the reliability and quality of scientific evidence;	P7U_U	P7S_UW P7S_UK
LEK_B.U13.	B.U13.	plan and perform basic scientific research, interprets the results and draws conclusions;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_C.U1.	C.U1.	analyse genetic crossing over, pedigree qualities and human diseases as well as the estimated risk of having a child with chromosomal aberrations;	P7U_U	P7S_UW P7S_UK
LEK_C.U2.	C.U2.	identify indications for prenatal diagnosis;	P7U_U	P7S_UW P7S_UK
LEK_C.U3.	C.U3.	make a decision on the need to perform cytogenetic and molecular tests;	P7U_U	P7S_UW P7S_UK
LEK_C.U4.	C.U4.	make morphometric measurements, analyze the developmental profile and record the diseases' karyotypes;	P7U_U	P7S_UW P7S_UK
LEK_C.U5.	C.U5.	assess the risk of disclosure of a particular disease in the offspring based on family predisposition and the influence of environmental factors;	P7U_U	P7S_UW P7S_UK
LEK_C.U6.	C.U6.	assess environmental hazards and use basic methods allowing to detect the presence of harmful agents (biological and chemical) in the biosphere;	P7U_U	P7S_UW P7S_UK
LEK_C.U7.	C.U7.	recognize the most common human parasites on the basis of their construction, life cycles and symptoms of the disease;	P7U_U	P7S_UW P7S_UK

LEK_C.U8.	C.U8.	use the antigen - antibody reaction in current modifications and techniques for the diagnosis of infectious diseases, allergies, autoimmune diseases, blood diseases and cancer;	P7U_U	P7S_UW P7S_UK
LEK_C.U9.	C.U9.	prepare a microscopic formulation and recognize pathogens under a microscope;	P7U_U	P7S_UW P7S_UK
LEK_C.U10.	C.U10.	interpret the results of microbiological tests;	P7U_U	P7S_UW P7S_UK
LEK_C.U11.	C.U11.	make connection between images of tissue and organ damage and clinical symptoms of the disease, medical history and the results of laboratory determinations;	P7U_U	P7S_UW P7S_UK
LEK_C.U12.	C.U12.	analyse defensive and adaptation reactions as well as regulation disorders caused by the etiological factor;	P7U_U	P7S_UW P7S_UK
LEK_C.U13.	C.U13.	perform simple pharmacokinetic calculations;	P7U_U	P7S_UW P7S_UK
LEK_C.U14.	C.U14.	select drugs at appropriate doses for correcting the pathological phenomena in the body and in individual organs;	P7U_U	P7S_UW P7S_UK
LEK_C.U15.	C.U15.	design the scheme of rational infection chemotherapy, both empirical and targeted;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_C.U16.	C.U16.	prepare transcripts of all forms of prescription of medicinal substances;	P7U_U	P7S_UW P7S_UK
LEK_C.U17.	C.U17.	use pharmaceutical directories and databases of medicinal products;	P7U_U	P7S_UW P7S_UK
LEK_C.U18.	C.U18.	assess toxicological danger in specific age groups and in the states of liver and kidney failure, as well as prevent drug intoxication;	P7U_U	P7S_UW P7S_UK
LEK_C.U19.	C.U19.	interpret the results toxicological tests;	P7U_U	P7S_UW P7S_UK
LEK_C.U20.	C.U20.	describe changes in the functioning of the organism in case of disruption of homeostasis, in particular determines its integrated response to exercise, exposure to high and low temperature, loss of blood or water, sudden vertical position, transition from sleep to wakefulness;	P7U_U	P7S_UW P7S_UK
LEK_D.U1.	D.U1.	take into account subjective needs and expectations of the patient resulting from socio-cultural conditions during the therapeutic procedure;	P7U_U	P7S_UW P7S_UK PTS_UO
LEK_D.U2.	D.U2.	detect the signs of unhealthy and self-destructive behavior and properly respond to them;	P7U_U	P7S_UW P7S_UK PTS_UO
LEK_D.U3.	D.U3.	select the treatment which minimizes the social consequences for the patient;	P7U_U	P7S_UW P7S_UK
LEK_D.U4.	D.U4.	create the atmosphere of trust during the entire diagnosis and treatment process;	P7U_U	P7S_UO
LEK_D.U5.	D.U5.	lead conversations with an adult patient, a child and family using the techniques of active listening and expression of empathy and talk with the patient about his/her life situation;	P7U_U	P7S_UK PTS_UO
LEK_D.U6.	D.U6.	inform the patient about the purpose, process and potential risks of the proposed diagnostic or therapeutic action and obtain his/her informed consent;	P7U_U	P7S_UK PTS_UO
LEK_D.U7.	D.U7.	engage the patient in the therapeutic process;	P7U_U	P7S_UK

				PTS_UO
LEK_D.U8.	D.U8.	inform the patient and his/her family about poor prognosis;	P7U_U	P7S_UK PTS_UO
LEK_D.U9.	D.U9.	give advice on the compliance with therapeutic recommendations and a healthy lifestyle;	P7U_U	P7S_UK PTS_UO
LEK_D.U10.	D.U10.	identify risk factors for violence, recognize violence and respond appropriately;	P7U_U	P7S_UW P7S_UO
LEK_D.U11.	D.U11.	apply psychological interventions, motivational and supporting;	P7U_U	P7S_UW P7S_UO
LEK_D.U12.	D.U12.	communicate with colleagues in his/her team providing constructive feedback and support;	P7U_U	P7S_UK
LEK_D.U13.	D.U13.	comply with ethical standards in professional activities;	P7U_U	P7S_UW
LEK_D.U14.	D.U14.	recognize ethical dimensions of medical decisions and distinguish the factual aspects from the normative ones;	P7U_U	P7S_UW
LEK_D.U15.	D.U15.	observe patients' rights;	P7U_U	P7S_UW
LEK_D.U16.	D.U16.	be responsible for improving his/her skills and transferring knowledge to others;	P7U_U	P7S_UU
LEK_D.U17.	D.U17.	critically examine medical literature, including medical literature in English and draw conclusions;	P7U_U	P7S_UW P7S_UK
LEK_D.U18.	D.U18.	communicate with the patient in one foreign language at the B2 level on the basis of Common European Framework of Reference for Languages;	P7U_U	P7S_UK
LEK_E.U1.	E.U1.	conduct a review of medical history of the adult patient;	P7U_U	P7S_UW P7S_UK
LEK_E.U2.	E.U2.	conduct a review of medical history of the child and its family;	P7U_U	P7S_UW P7S_UK
LEK_E.U3.	E.U3.	conduct full and targeted physical examination of the adult patient;	P7U_U	P7S_UW P7S_UK
LEK_E.U4.	E.U4.	conduct physical examination of the child at any age;	P7U_U	P7S_UW P7S_UK
LEK_E.U5.	E.U5.	conduct psychiatric examination;	P7U_U	P7S_UW P7S_UK
LEK_E.U6.	E.U6.	conduct indicative study of hearing and sight as well as the otoscopic examination;	P7U_U	P7S_UW P7S_UK
LEK_E.U7.	E.U7.	assess patient’s general condition, consciousness and awareness;	P7U_U	P7S_UW P7S_UK
LEK_E.U8.	E.U8.	assess the condition of a newborn according to a the Apgar scale and its maturity as well as examine neonatal reflexes;	P7U_U	P7S_UW P7S_UK
LEK_E.U9.	E.U9.	make relations between anthropometric measurements and blood pressure with data in growth charts;	P7U_U	P7S_UW P7S_UK
LEK_E.U10.	E.U10.	assess the stage of puberty;	P7U_U	P7S_UW P7S_UK
LEK_E.U11.	E.U11.	conduct checkups for children;	P7U_U	P7S_UW P7S_UK
LEK_E.U12.	E.U12.	perform differential diagnosis of the most common diseases in adults and children;	P7U_U	P7S_UW

				P7S_UK
LEK_E.U13.	E.U13.	assess and describes the somatic and mental state of patients;	P7U_U	P7S_UW P7S_UK
LEK_E.U14.	E.U14.	recognize states of a direct threat to life;	P7U_U	P7S_UW P7S_UK
LEK_E.U15.	E.U15.	recognize when a patient is under the influence of alcohol, drugs and other addictive products;	P7U_U	P7S_UW P7S_UK
LEK_E.U16.	E.U16.	plan diagnostic, therapeutic and preventive procedures;	P7U_U	P7S_UW P7S_UK
LEK_E.U17.	E.U17.	conduct analysis of the potential side effects of each drug and the interaction between them;	P7U_U	P7S_UW P7S_UK
LEK_E.U18.	E.U18.	propose individualization of existing guidelines and other therapeutic treatments in the case of non-effectiveness of or contraindications to standard therapy;	P7U_U	P7S_UW P7S_UK
LEK_E.U19.	E.U19.	recognize signs of drug dependency and propose a treatment procedure;	P7U_U	P7S_UW P7S_UK
LEK_E.U20.	E.U20.	qualify the patient for home treatment and hospitalization;	P7U_U	P7S_UW P7S_UK
LEK_E.U21.	E.U21.	recognize states in which functional status of the patient's or his/her preferences restrict the treatment in accordance with specific guidelines for the disease;	P7U_U	P7S_UW P7S_UK
LEK_E.U22.	E.U22.	conduct functional assessment of the patient with disability;	P7U_U	P7S_UW P7S_UK
LEK_E.U23.	E.U23.	propose a program of rehabilitation for common diseases;	P7U_U	P7S_UW P7S_UK
LEK_E.U24.	E.U24.	interpret laboratory test results and identify the reasons for deviations;	P7U_U	P7S_UW P7S_UO
LEK_E.U25.	E.U25.	apply dietary treatment with the consideration of enteral and parenteral feeding;	P7U_U	P7S_UW P7S_UO
LEK_E.U26.	E.U26.	plan treatment in the case of exposure to infection transmitted through blood;	P7U_U	P7S_UW P7S_UO
LEK_E.U27.	E.U27.	qualify the patient for vaccination;	P7U_U	P7S_UW P7S_UO
LEK_E.U28.	E.U28.	collect and secure samples of material used in laboratory diagnostics;	P7U_U	P7S_UW P7S_UO
LEK_E.U29.	E.U29.	perform basic medical procedures and treatments, including: 1) measurement of body temperature, pulse measurement, non-invasive blood pressure measurement, 2) monitoring of vital signs using a cardio-monitor or pulse oximetry, 3) spirometry, oxygen therapy, assisted and control mode ventilation 4) introduction of the oropharyngeal tube, 5) intravenous injection , intramuscular and subcutaneous injections, cannulation of peripheral veins, collection of peripheral venous blood, collection of arterial blood, collection arterialized capillary blood,	P7U_U	P7S_UW P7S_UO P7S_UU

		6) collecting swabs from the nose, throat and skin, puncture of pleural cavity, 7) catheterization of the urinary bladder in women and me, nasogastric intubation, gastric lavage, enema, 8) standard electrocardiogram along with its interpretation, cardioversion and defibrillation of the heart, 9) simple test strips and measuring the concentration of glucose in the blood;		
LEK_E.U30.	E.U30.	assist when the following procedures and medical treatments are performed: 1) transfusions of blood and blood products, 2) drainage of the pleural cavity, 3) puncture of the pericardium, 4) puncture of the peritoneal cavity, 5) lumbar puncture, 6) needle biopsy, 7) epidermal tests, 8) intradermal and scarification tests and interpret their results;	P7U_U	P7S_UW P7S_UO P7S_UU
LEK_E.U31.	E.U31.	interpret descriptions of pharmaceutical medicines and critically assess advertising materials relating to medicines;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U32.	E.U32.	plan specialist consultations;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U33.	E.U33.	implement the basic therapeutic procedure in acute poisoning;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U34.	E.U34.	monitor the status of a patient poisoned by chemical substances or drugs;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U35.	E.U35.	evaluate decubitus and apply appropriate dressings;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U36.	E.U36.	act correctly in the case of injuries (use dressing or immobilization, stitch the wound);	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U37.	E.U37.	recognize the agony of the patient and pronounce him/her dead;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_E.U38.	E.U38.	keep medical records of the patient;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U1.	F.U1.	assist during a typical surgery, prepare the surgical site and locally anesthetize operated area;	P7U_U	P7S_UW P7S_UK P7S_UO

LEK_F.U2.	F.U2.	use basic medical tools;	P7U_U	P7S_UW P7S_UK
LEK_F.U3.	F.U3.	comply with the aseptic and antiseptic rules;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U4.	F.U4.	manage simple wounds and change sterile surgical dressing;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U5.	F.U5.	use peripheral venous catheter;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U6.	F.U6.	examine nipples, lymph nodes, thyroid gland and the abdominal cavity in terms of acute abdomen and perform finger test through the anus;	P7U_U	P7S_UW P7S_UK
LEK_F.U7.	F.U7.	assess radiological test result in terms of the most common types of fractures, especially fractures of long bones;	P7U_U	P7S_UW P7S_UK
LEK_F.U8.	F.U8.	perform temporary immobilization of a limb, select the type of immobilization necessary for use in typical clinical situations and check blood supply to the limbs after using the cast;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U9.	F.U9.	manage external bleeding;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U10.	F.U10.	perform basic resuscitation with automated external defibrillator and other rescue activities and provide first aid;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U11.	F.U11.	act in accordance with the current algorithm of advanced life support activities;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U12.	F.U12.	monitor the patient’s condition during the postoperative period on the basis of basic parameters of life;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U13.	F.U13.	recognize signs and symptoms of abnormal pregnancy (abnormal bleeding, uterine contractions);	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U14.	F.U14.	interpret the results of physical examination of the pregnant woman (blood pressure, heart rate of the fetus’s mother) and the results of laboratory tests indicative of pathologies of pregnancy;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U15.	F.U15.	interpret cardiotocography (CTG) record;	P7U_U	P7S_UW P7S_UK
LEK_F.U16.	F.U16.	recognize the beginning of childbirth and its abnormal duration;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U17.	F.U17.	interpret the signs and symptoms during the postpartum period;	P7U_U	P7S_UW

				P7S_UK
LEK_F.U18.	F.U18.	make recommendations, indications and contraindications for the use of contraceptive methods;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U19.	F.U19.	perform ophthalmologic screening;	P7U_U	P7S_UW P7S_UK
LEK_F.U20.	F.U20.	recognize ophthalmic conditions that require immediate medical specialist support and provide initial, qualified assistance in cases of injury to the physical and chemical properties of the eye;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U21.	F.U21.	assess the condition of the unconscious patient in accordance with applicable international scales;	P7U_U	P7S_UW P7S_UK
LEK_F.U22.	F.U22.	recognize the symptoms of increasing intracranial pressure;	P7U_U	P7S_UW P7S_UW
LEK_F.U23.	F.U23.	assess indications for suprapubic puncture and participate in its execution;	P7U_U	P7S_UW P7S_UK
LEK_F.U24.	F.U24.	assist during the common urological procedures (diagnostic and therapeutic endoscopy of the urinary system, lithotripsy, puncture of the prostate);	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_F.U25.	F.U25.	perform basic ENT assessment in the field of ear, nose, throat and larynx;	P7U_U	P7S_UW P7S_UK
LEK_F.U26.	F.U26.	perform indicative hearing test;	P7U_U	P7S_UW P7S_UK
LEK_G.U1.	G.U1.	describe demographic structure of the population and on that basis assess the health problems of the population;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_G.U2.	G.U2.	collect information on the presence of infectious and chronic diseases' risk factors and plan preventive actions at different levels of prevention;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_G.U3.	G.U3.	interpret measures of frequency of diseases and disability appearance;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_G.U4.	G.U4.	estimate epidemiological situation of the most common diseases in Poland and in the world;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_G.U5.	G.U5.	explain to the people who use medical services their basic rights and the legal basis for providing medical benefits;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_G.U6.	G.U6.	issue medical certificates for the needs of patients, their families and other entities;	P7U_U	P7S_UW P7S_UK P7S_UO
LEK_G.U7.	G.U7.	recognize symptoms indicating the possibility of using violence against the child during his/her examination;	P7U_U	P7S_UW P7S_UK

				P7S_UO
LEK_G.U8.	G.U8.	act in such a way as to avoid medical errors;	P7U_U	P7S_UW P7S_UK P7S_UO PS7_UU
LEK_G.U9.	G.U9.	collect blood for toxicological studies and secure the material for hemogenetic research;	P7U_U	P7S_UW P7S_UK P7S_UO P7S_UU
ADDITIONAL LEARNING OUTCOMES				
within the scope of **SOCIAL COMPETENCE**, the graduate is able to:				
LEK_H.S1.	H.S1.	establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences;	P7U_K	P7S_KR
LEK_H.S2.	H.S2.	do what is right for the patient;	P7U_K	P7S_KR
LEK_H.S3.	H.S3.	respect medical confidentiality and patient's rights;	P7U_K	P7S_KR
LEK_H.S4.	H.S4.	take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness;	P7U_K	P7S_KO P7S_KK P7S_KR
LEK_H.S5.	H.S5.	recognize his/her own limitations and self-evaluate educational deficiencies and needs;	P7U_K	P7S_KK
LEK_H.S6.	H.S6.	promote healthy lifestyle;	P7U_K	P7S_KO P7S_KK P7S_KR
LEK_H.S7.	H.S7.	use reliable information sources;	P7U_K	P7S_KK P7S_KR
LEK_H.S8.	H.S8.	conclude on the basis of own surveys and observations;	P7U_K	P7S_KO P7S_KK P7S_KR
LEK_H.S9.	H.S9.	introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment;	P7U_K	P7S_KO P7S_KK P7S_KR
LEK_H.S10.	H.S10.	give opinions concerning various aspects of professional activity;	P7U_K	P7S_KR
LEK_H.S11.	H.S11.	take responsibility for own decisions made during professional activities including own safety and safety of other people;	P7U_K	P7S_KO P7S_KK P7S_KR

1) *Ordinance of the Minister of Science and Higher Education of 26th July 2019 concerning standards of education preparing for the profession of a doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic*

2) *Announcement of the Speaker of the Sejm of the Republic of Poland of 25th October 2018 on the consolidated text of the Act on the Integrated Qualifications System*

3) *Ordinance of the Ministry of Science and Higher Education of 14th November 2018 on the secondary characteristics of learning outcomes for qualifications at levels 6-7 of the Polish Qualifications Framework*

13. COURSES WITH ECTS POINTS ASSIGNED TO THEM, LEARNING OUTCOMES AND CONTENTS:

	Courses	Mininum ECTS points	Course content	Referrence to the learning outcomes of the field
BASIC COURSES/ DIRECTIONAL:				
A.	**Morphological Sciences**	**26**		
1.	Anatomy	17	Anatomical structure and nomenclature of the skeletal, muscular, nervous, circulatory, respiratory, digestive, reproductive, urinary, endocrine systems, sense organs and integumentary system. The structure of the human body in the topographic aspect and topographic relations between individual organs. Assessment of the state of individual human functional systems in various clinical situations. Human topographic anatomy in medical diagnostic and therapeutic procedures. Shaping the appropriate ethical attitude towards the body of the living and the dead. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	A.W1. A.W2. A.W3. A.U3. A.U4. A.U5. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
2.	Histology with embriology	9	Principles of basic research methods used in histology and embryology. Division of human body tissues, their origin and functions as well as histological structure of individual systems. Basic knowledge of embryology with particular emphasis on histogenesis and organogenesis. Basic laboratory techniques in the study of cellular and tissue materials. Tissue structure and their morphological diversity in strict relation to their functions. Construction of the light optical microscope and microscope adjustment. Histological structure of systems and organs with particular emphasis on those morphological elements that form the basis of their functions. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	A.W1. A.W4. A.W5. A.W6. A.U1. A U2. A.U5. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
B.	**Scientific basis of medicine**	**44**		
3.	Biophysics	4	Physical foundations of mechanisms governing physiological processes in living organisms and the functioning of organs and organ systems of the human body. Physical laws describing flows of: electricity, liquids and factors affecting resistances; electrical, vascular. Natural and artificial sources of ionizing radiation and its interaction with matter. Physicochemical and molecular basics of sensory organs functioning. Physical foundations of non-invasive imaging methods. Physical foundations of selected therapeutic techniques. Telemedicine as a tool to support the doctor's work. Harmfulness of ionizing radiation dose and compliance with radiation protection principles. Planning and conducting basic physical measurements in medical research and developing results. The student is able to establish a therapeutic relationship with the patient and his/her	B.W5. B.W6. B.W7. B.W8. B.W9. B.W28. B.U1 B.U2. B.U9. B.U10. B.U13.

			family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
4.	Basis of cel biology	5	Basic cellular structures and their functional specialties. The structure of lipids and polysaccharides and their functions in cellular and extracellular structures as well as characteristics of the primary, secondary, tertiary and quaternary structure of proteins. Post-translational and functional modifications of protein and their significance. The functions of nucleotides in the cell, primary and secondary structure of DNA and RNA, and the structure of chromatin. Methods of communication between cells, as well as between the cell and the extracellular matrix, as well as signalling pathways in the cell and examples of disorders in these processes leading to the development of cancer and other diseases. Processes such as: cell cycle, proliferation, cell differentiation and ageing, apoptosis and necrosis, and their importance for the functioning of the body. The basic scope of stem cell issues and their use in medicine. Analysis of cell structure at the level of light and electron microscope and identification of subcellular structures using modern techniques. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	A.W4. B.W11. B.W12. B.W13. B.W17. B.W18. B.W19. A.U1. A.U2. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
5.	Chemistry	4	Properties and structure of inorganic and organic compounds important in living organisms. Basic chemical reactions and physicochemical processes important in the functioning of the human body and reactions of inorganic and organic compounds in aqueous solutions. Structure of simple organic compounds contained in macromolecules present in cells, extracellular matrix and body fluids. Structure of lipids and polysaccharides and their functions in cellular and extracellular structures; Carrying out selected analytical calculations and interpretation of obtained results. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	B.W4. B.W3. B.W2. B.W10. B.W11. B.U3. B.U4. B.U5. B.U8. B.U9. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
6.	Biochemistry	5	Basic reactions of inorganic and organic compounds in aqueous solutions. Structure of simple organic compounds contained in macromolecules present in cells, extracellular matrix and body fluids. Structure and functioning of lipids, proteins and polysaccharides and their functions in cellular and extracellular structures. Basic catabolic and anabolic pathways and methods of their regulation as well as their	B.W4. B.W10. B.W11. B.W12. B.W13.

			determinants. Metabolic profiles of basic organs and systems. The effect of stress on cells and its importance in the pathogenesis of diseases and in ageing processes. Selected biochemical analyses. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	B.W15. B.W16. C.W47. B.U3. B.U4. B.U5. B.U6. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
7.	Physiology with cytophysiology	16	Basics of general human physiology including basic aspects of cell physiology. General concepts and principles of functioning of all systems and organs of the human body. Oxidative potential of the body and oxidative stress. Enzymes involved in digestion, the mechanism of hydrochloric acid production in the stomach, the role of bile, the course of absorption of digestive products and related disorders. The consequences of improper nutrition. Cell cycle, proliferation, cell differentiation and ageing, apoptosis and necrosis and their role in functioning. Stem cells issues and their use in medicine. The mechanism of ageing of the human body. Quantitative parameters describing the efficiency of individual systems and organs. The relationship between factors disturbing the balance of biological processes and physiological and pathophysiological changes. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	A.W4. B.W1. B.W2. B.W3. B.W7. B.W16. B.W18. B.W19. B.W20. B.W21. B.W22. B.W23. B.W24. B.W25. C.W6. C.W47. C.W48. C.W49. C.W50. C.W51. A.U1. B.U7. B.U8. B.U9. C.U20. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.

8.	Biostatistic with elements of informatics	6	Basic information technology and biostatistical methods used in medicine, including medical databases, spreadsheets and the basics of computer graphics. Basic methods of statistical analysis used in population and diagnostic tests. The possibilities of modern telemedicine as a tool to support the work of doctors. Searching for information in medical databases, using selected statistical methods with a program supporting statistical calculations and the ability to cooperate in a group during the implementation of the project. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	B.W26. B.W27. B. W28. B.U10. B.U11. B.U12. B.U13. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
9.	First aid with elements of nursing	3	Basics of first aid and performing basic medical procedures and treatments. Current guidelines for cardiopulmonary resuscitation of newborns, children and adults. Basic resuscitation procedures with the use of an automatic external defibrillator and other rescue operations and giving first aid. Assessment of the unconscious patient's condition. Dressing wounds and temporary limb immobilization. Symptoms of increased intracranial pressure. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W7. E.U29. F.U3. F.U9. F.U10. F.U11. F.U21. F.U22. F.U8. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
10.	Methodology of scientific research with elements of biostatistics in medicine	1	Basics of evidence-based medicine. The principles of clinical practice strategy based on scientific evidence and the use of research results in medical practice. Causes, symptoms, principles of diagnosis and therapeutic treatment in the most common diseases and specific problems in a family doctor's practice. Principles of conducting scientific, observational and experimental research as well as in vitro studies for the development of medicine. Shaping awareness of the importance of research and scientific reports in clinical decision making and medical professionalism The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	B.W29. D.W23. E.W38. B.U13. D.U16. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
C. Preclinical sciences		**44**		
1.	Genetics	2	Basic concepts in genetics. Human genome, transcriptome and proteome functions and basic methods used in their study; describes processes of DNA replication, repair and recombination, transcription and translation as well as degradation of DNA, RNA	B.W14. C.W1. C.W2.

			and protein. Gene expression regulation concepts. Correct human karyotype and different types of sex determination. The structure of chromosomes and the molecular basis of mutagenesis. Genetic conditions of human blood groups and Rh incompatibility in the system. Autosome and heterosome aberrations that cause diseases, including cancers (oncogenesis). Factors affecting the primary and secondary genetic equilibrium of the population. Fundamentals of diagnostics of gene and chromosomal mutations responsible for inherited and acquired diseases, including cancer. Benefits and threats resulting from the presence of genetically modified organisms (GMO) in the ecosystem. Genetic mechanisms of drug resistance acquisition by microorganisms and cancer cells. Clinical symptoms and genetic liabilities of selected diseases. Diagnostics principles of genetic diseases in humans. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W3. C.W4. C.W5. C.W6. C.W7. C.W8. C.W9. C.W10. C.W11. E.W37. C.U1. C.U2. C.U3. C.U4. C.U5. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
2.	Microbiology	6	Classification of microorganisms including pathogenic and microbial flora. Epidemiology of virus, bacterial and fungal and parasite infections, taking into account geographical range of their occurrence. The influence of abiotic and biotic environmental factors on the human body and the human population, and the ways of their penetration into the human body. Consequences of exposure of the human body to various chemical and biological agents, and the principles of prevention. Symptoms of iatrogenic infections, their pathways and pathogens causing changes in individual organs. Basics of microbiological and parasitological diagnostics. Basics of disinfection, sterilization and aseptic treatment. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W12. C.W13. C.W14. C.W16. C.W18. C.W19. C.W20. A.U1. C.U6. C.U7. C.U9. C.U10. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
3.	Parasitology	2	Basic concepts in parasitology and epidemiology of parasitic infections, taking into account geographical range of their occurrence. Anatomical and morphological structure of selected parasites and the role and the importance of parasites for animals and humans. Invasive forms of parasites for humans, including their morphology and systematics. The principle of functioning of the parasite - host system and the basic	C.W13. C.W15. C.W16. C.W17. C.W19.

			disease symptoms caused by parasites. Basics of microbiological and parasitological diagnostics. Principles for taking and storing material for parasite testing. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge	A.U1. C.U7. C.U9. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
4.	Immunology	3	Structure and functions of the immune system. Basics of development and mechanisms of the immune system functioning, including specific and non-specific mechanisms of humoral and cellular immunity. Types of immune response. The structure and role of the major HLA histocompatibility system. Major histocompatibility system. Types of hypersensitivity reactions, types of immunodeficiencies and basics of immunomodulation. Immunology of neonatal and paediatric period. Anti-infectious immunity. Active and passive immunoprophylaxis. Primary and secondary immunodeficiencies. Issues in the field of cancer immunology. Genetic basics of donor and recipient selection and basics of transplant immunology. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W21. C.W22. C.W23. C.W24. C.W25. C.U8. C.U12. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
5.	Pathology	11	Basic mechanisms of cell and tissue damage. Clinical course of specific and non-specific inflammation and regeneration processes of tissues and organs. Pathophysiology of shock, with particular emphasis on the differentiation of the causes of shock and multisystem organ failure. Aetiology of haemodynamic disorders, regressive and progressive changes. Issues in the field of detailed organ pathology, macro- and microscopic images and the clinical course of pathomorphological changes in individual organs. Consequences of developing pathological changes for topographically adjacent organs. External and internal pathogens, modifiable and non-modifiable. Clinical forms of the most common diseases of individual systems and organs, metabolic diseases and disorders of water-electrolyte and acid-base balance. The relationship between the patient, clinician and pathologist. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W26. C.W27. C.W28. C.W29. C.W30. C.W31. C.W32. C.W33. C.W34. A.U1. A.U2. C.U11. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
6.	Pharmacology with toxicology	12	Basic principles of pharmacodynamics, pharmacokinetics, pharmacoeconomics, pharmacogenetics. Genetic mechanisms of drug resistance acquisition by microorganisms and cancer cells as well as the problem of drug resistance, including	C.W11. C.W35. C.W36.

			multi-drug resistance. Mechanisms of drugs effect and their changes in the body depending on age. Impact of disease processes on metabolism and elimination of drugs. Adverse drug reactions, including those resulting from their interactions. Groups of drugs, the abuse of which can lead to intoxication and the basic principles of diagnostic procedure in poisoning. Interpretation of toxicological test results. Verification of drug information sources and evaluation of medical publications. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W37. C.W38. C.W39. C.W40. C.W41. C.W42. C.W43. C.W44. C.W45. C.W46. C.U13. C.U14. C.U15. C.U16. C.U17. C.U18. C.U19. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
7.	Hospital-acquired infections	1	Epidemiology of infections caused by bacteria and viruses, which are the most common etiological factors of nosocomial infections. Risk factors for infection. Rules of conduct in case of an outbreak. Principles of commissioning and interpretation of microbiological screening test results. Species of bacteria, viruses and fungi which are the most common etiological factors of infections. Possibilities of supervision and control of nosocomial infections, with special attention paid to infections caused by multi-resistant strains. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W11. C.W12. C.W13. C.W14. C.W15. C.W17. C.W18. C.W19. C.U6. C.U10. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
8.	Pathophysiology	7	Basic terms used in pathophysiology. Functional changes in the organism in a disease. Mechanisms of disease development and systemic consequences resulting from the disease. Fundamentals of etiopathogenesis of diseases of individual systems and the pathomechanism of consequences of disturbed function of organs and systems of human organisms. Symptoms of the most common acute poisoning, including	C.W50. C.W48. C.W51. B.W23. B.W25.

			alcohol, drugs and other psychoactive substances, heavy metals and selected groups of medicaments. Pathophysiological phenomena occurring in individual organs and systems with the ability to link individual pathomechanisms accompanying various diseases. Changes in the human body under the influence of ageing. Consequences of improper nutrition, including prolonged starvation, too big meals, and an unbalanced diet; deficiency of vitamins or minerals and their excess in the body. Mechanism of hormone functioning and consequences of hormonal imbalance. Autosome and heterosome aberrations that cause diseases, including cancers (oncogenesis). Fundamentals of diagnostics of gene and chromosomal mutations responsible for inherited and acquired diseases, including cancer. Clinical forms of the most common diseases of individual systems and organs, metabolic diseases and disorders of water-electrolyte and acid-base balance. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W7. C.W9. C.W29. C.W34. C.W45. C.U11. H.S5. H.S7. H.S8. H.S9. H.S10. H.S11.
D. Behavioral sciences with elements of professionalism		**15**		
1.	Medical sociology	1	The current state of knowledge about the social dimension of health and disease, the impact of the social environment. Theoretical basics in the field of general sociology and sociology of medicine in health behaviours, social approach to the analysis of the causes and consequences of a disease, disability, social pathologies and death in the context of the functioning of family, local environment and society. Forms of violence, models explaining domestic and institutional violence, social conditions of various forms of violence, and the role of a doctor in recognizing it. Knowledge of the sociology of medical institutions and professions, in particular the creation of social relations between a doctor and a therapeutic team, a patient and his family. Shaping the sense of responsibility and commitment in shaping bonds and social behaviour favourable to health strengthening. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.W1. D.W2. D.W3. D.W4. D.W10. D.W14. D.W18. D.W19. D.U1. D.U2. D.U3. H.S2. H.S3. H.S4. H.S6. H.S7.
2.	Medical psychology	1	The importance of verbal and non-verbal communication in the process of communication with patients and the concept of trust in interaction with the patient. Psychosocial consequences of hospitalization and a chronic disease. Basic psychological mechanisms of human functioning in health and disease. The issue of adaptation to the disease as a difficult situation, stages of adaptation to threatening events and the needs of the patients, dying and the process of mourning of the family. The role of stress in the etiopathogenesis and course of diseases as well as mechanisms of coping with stress. Rules for motivating patients to promote healthy behaviours and to inform about unfavourable prognosis. The student is able to establish a therapeutic relationship with the patient and his/her	D.W6. D.W7. D.W9. D.W10. D.W11. D.W12. D.W13. D.W15. D.U4. D.U5.

			family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.U6. D.U8. D.U10. D.U11. H.S2. H.S3. H.S4. H.S6. H.S7.
3.	Ethics	1	Current knowledge of ethics, deontology, bioethics and familiarizing with contemporary moral problems in medicine. Preparation for medical practice based on skilful and justified compliance with legal values, principles and norms. Ethical knowledge, which serves to shape the correct relationship between the doctor and the patient, own professional group and representatives of other medical professions. Principles of altruism and clinical responsibility as well as awareness of the principles of functioning of the therapeutic team. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.W15. D.W16. D.W17. D.U6. D.U8. D.U10. D.U14. D.U13. H.S2. H.S3. H.S4. H.S6. H.S7.
4.	Elements of professionalism	1	Issues of professionalism in medicine. Developing skills related to professional behaviour in which the good of the patient is a priority of individual doctor, professional group and medical institutions. Psychosocial consequences of hospitalization and a chronic disease. The role of stress in the etiopathogenesis and course of diseases as well as mechanisms of coping with stress. The rules for motivating patients to promote healthy behaviours and to inform about unfavourable prognosis. Doctor-patient cooperation models; duties and privileges of doctors and patients, social contract. Regulatory mechanisms: European Charter of Patients' Rights. Macro and micro skills in conducting medical record; verbal and non-verbal aspects of behaviour, skills leading to "opening up" of the patient. Basics of evidence-based medicine. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.W4. D.W6. D.W7. D.W8. D.W10. D.W11. D.W12. D.W15. D.W18. D.W23. D.U1. D.U2. D.U3. D.U4. D.U5. D.U6. D.U7. D.U8. D.U9. D.U10. D.U12. D.U14.

				D.U15. D.U16. D.U17. H.S2. H.S3. H.S4. H.S6. H.S7.
5.	History of medicine	2	Presentation of the history of medical sciences in the socio-cultural aspect. Identification of conditions promoting or inhibiting the development of medicine Ethical attitudes of prominent representatives of medicine. The role of tradition in transferring medical knowledge and skills, among others in the aspect of intergenerational master-student relations. The role of multicultural and international university centres in the development of medicine. Analysis of medical literature, including in English, and drawing conclusions based on available literature. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.W20. D.W21. D.W22. D.U17. H.S2. H.S3. H.S4. H.S6. H.S7.
6.	Basic Polish	2	Using the skills of Polish language basics of grammar and communication in everyday life.	D.W5. D.W6. D.U18. H.S2. H.S3. H.S4. H.S6. H.S7.
7.	Polish for medicine	3	Improving and developing knowledge of lexical and grammatical structures in the field of medical sciences. Developing language competences for professional needs, in particular the ability to use medical literature and communication in a professional environment, including communication with the patient. Developing competence to critically assess knowledge. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.W5. D.W6. D.U18. H.S2. H.S3. H.S4. H.S6. H.S7.
8.	Polish communication skills for medicine	2	Improving the ability to communicate with the patient and the therapeutic team at the B2 + level of the Common European Framework of Reference for Languages.	D.W5. D.W6. D.U18. H.S2. H.S3. H.S4. H.S6. H.S7.
9.	Communication with the patient and his family	2	Effective communication skills, improving self-presentation skills and building	D.W5.

			positive relationships. The importance of verbal and non-verbal communication in the process of communication with patients and the concept of trust in interaction with the patient. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	D.W6. D.U4. D.U5. H.S2. H.S3. H.S4. H.S6. H.S7.
E.	**Clinical Sciences - Non-surgical treatment**	**65**		
1.	Pediatrics	16	Nutrition rules for healthy and sick children, preventive vaccinations and routine medical check-ups. Medical history and physical examination of a child. Qualifying the patient for home and hospital treatment. Basics of conditioning in the diagnosis and therapy of the most common children's diseases and secondary symptoms. Abused and sexually abused child. Mental disorders and their treatment in children and adolescents. Mental retardation in children. Behavioural disorders: psychosis, addictions, eating and excretion disorders in children. The most common life-threatening conditions in children and rules of conduct in these conditions. Causes, symptoms, principles of diagnosis and therapeutic procedure in the most common hereditary diseases. Analysis of the adverse reactions of individual drugs and their interactions in the treatment of the most common children's diseases. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W2. E.W3. E.W4. E.W6. E.W19. E.W37. C.U4. E.U2. E.U4. E.U7. E.U8. E.U9. E.U10. E.U11. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U27. E.U28. E.U29. E.U30. E.U32. E.U34. E.U35. E.U38. F.U3.

				H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
2.	Internal Medicine-propaedeutics in internal medicine with elements of cardiology	3	The content includes the symptomatology of internal system diseases and selected cardiology cases. Each case includes definition, pathophysiology, clinical picture, and diagnostic tests (ECG, echocardiography, stress tests, Holter ECG, ABPM, coronary angiography, electrophysiological examination, MRI, SPECT, MUGA, CT, PET, laboratory tests) and non-invasive and invasive treatment (including electrical heart stimulation, ICD, CRT, ablation). Medical history, physical examination of an adult patient, assessment of general condition, patient's state of consciousness and awareness. Physical examination of the patient. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.U1. E.U3. E.U7. E.U12. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
3.	Internal Medicine	10	The specificity of work in a hospital and a specialist outpatient clinic, principles of cooperation with other doctors and staff. The doctor-patient relationship taking into account the specifics of internal diseases, the role of support and family, special situations (e.g. incapacitated patient). Environmental and epidemiological conditions of the most common internal diseases. Causes, symptoms, principles of diagnosis and therapeutic procedure in relation to the most common internal diseases occurring in adults and their complications. Taking medical history from an adult patient; full and targeted physical examination of an adult patient; assessment of the general condition and the state of consciousness and awareness of the patient. Differential diagnosis of the most common adult diseases. Assessment and description of the patient's somatic and mental state. Immediate life-threatening conditions and the state after consumption of alcohol, drugs and other drugs. Planning diagnostic, therapeutic and preventive procedures. Analysis of possible adverse reactions of individual drugs and interactions between them. Patient's qualification for home and hospital treatment. Interpretation of laboratory tests and identification of the causes of deviations. Application of nutritional treatment. Qualification of the patient for vaccination. Taking material for tests used in laboratory diagnostics. Performing basic medical	E.W1. E.W7. E.U1. E.U3. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U27. E.U28.

			procedures and medical treatments. Assisting in carrying out some medical procedures and medical treatments. Planning specialist consultations. Monitoring the condition of the patient poisoned by chemical substances or drugs. Assessment of pressure sores and the use of appropriate dressings as well as insertion of peripheral intravenous line. Identifying the patient's agony and certifying his death. Shaping attitudes in relations: doctor-patient, doctor-therapeutic team and ethical attitudes in accordance with the principles of ethics. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U29. E.U30. E.U32. E.U33. E.U34. E.U35. E.U37. E.U38. F.U3. F.U5. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
4.	Geriatrics	3	Causes and basic distinctions in the most common diseases occurring in the elderly and the rules of conduct in basic geriatric syndromes. Knowledge of the different course of disease processes in old age on the example of frailty syndrome, diseases of cardiovascular, respiratory, digestive, locomotor and endocrine systems. The course and symptoms of the ageing process, as well as the principles of holistic geriatric assessment and interdisciplinary care for an elderly patient. Basic principles of pharmacotherapy of elderly people's diseases. Risks associated with the hospitalization of elderly people. Basic rules for the organization of care for the elderly and the carer's burden. Specificity of mental disorders and their treatment in old age. The current state of the organization of care for the elderly in Poland. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W8. E.W9. E.W10. E.W11. E.W12. E.W19. E.U1. E.U3. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U32. E.U35. F.U3. H.S1.

				H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
5.	Neurology	4	Treatment of the most common neurological diseases; familiarizing with the principles medical history and physical examination of patients with nervous system diseases. Basic syndromes of neurological symptoms. Causes, symptoms, principles of diagnosis and therapeutic procedure in the most common diseases of the nervous system. Skills to observe and recognize the patient's neurological condition and interpret tests used in neurology: lumbar puncture, Doppler, CT, NMR, EEG and EMG. The specificity of work in neurological wards and shaping the right attitude towards people with neurological dysfunctions. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W13. E.W14. E.U3. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U21. E.U24. E.U30. E.U32. E.U35. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
6.	Psychiatry	4	Basic concepts of pathogenesis of mental disorders. General symptomatology of mental disorders and the principles of their classification according to the main classification systems. Symptoms, principles of diagnosis and therapeutic procedure in the most common mental illnesses. Principles of diagnostics and emergency procedures in psychiatry. Conducting full and targeted adult patient examination as well as psychiatric examination. Provisions regarding the protection of mental health, with particular regard to the rules of admission to a psychiatric hospital.	E.W1. E.W15. E.W16. E.W17. E.W18. E.W19. E.W20.

			The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W22. E.U3. E.U5. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
7.	Oncology	4	Environmental and epidemiological conditionings of the most common human diseases and cancers. Understanding the principles of cancer pain treatment. Basics of early cancer detection and principles of screening tests in oncology. Possibilities of modern cancer therapy, cell and gene therapy perspectives and their side effects. Principles of combination therapies in oncology, diagnostic and therapeutic algorithms in the most common human cancers. Principles of pain treatment, including cancer and chronic pain. Interpretation of laboratory tests and identification of the causes of deviations. The specificity of working with oncological patients. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W23. E.W24. E.W25. E.W26. E.W27. E.W28. E.W29. C.U3. E.U3. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U32. F.U3.

				H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
8.	Family medicine	4	The most common paediatric, adulthood, surgical, geriatric, as well as family and environmental issues in primary care. Causes, symptoms, principles of diagnosis and therapeutic treatment in the most common diseases and specific problems in a family doctor's practice. Ability to communicate properly with the patient and his family as well as creating and managing family doctor's practice. Work in the conditions of primary care centres and shaping the correct attitude of the doctor towards the patients under care. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W36. E.U3. E.U7. E.U11. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U27. E.U28. E.U32. E.U35. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
9.	Dermatology and venereology	3	Symptomatology of the most common dermatological diseases and proper dermatological terminology. Medical history and physical examination for	E.W35. E.W36.

			dermatological diseases and conclusions in the form of diagnosis, differentiation, additional tests and treatment. Etiopathogenesis, epidemiology, clinical picture, diagnostics and dermatological therapy of the most common infectious and non-infectious diseases of the skin, hair, nails and mucous membranes, benign and malignant neoplasm of skin, sexually transmitted diseases. Skin changes associated with diseases of internal organs and systemic diseases. Analysis of possible adverse reactions of individual drugs and interactions between them. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U3. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U32. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
10.	Infectious diseases	4	Epidemiology, diagnosis, treatment and prevention of infectious and parasitic diseases, with particular emphasis on hepatotropic virus infections, HIV infections and related opportunistic infections, as well as neuroinfections, tropical diseases, zoonoses, fever of unknown cause and vaccines and serums. Diagnosis of a disease of infectious etiology, knowledge on their etiopathogenesis and symptoms to the extent that allows differential diagnosis, establishing the final diagnosis and proposing initial empirical therapy, and after diagnosis - targeted therapy (including chemotherapy). Conducting a full and targeted physical examination of an adult patient and assessment of the general condition, state of consciousness and awareness of the patient. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W32. E.W33. E.W34. G.W3. E.U3. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U26. E.U30. E.U32. F.U3. H.S1. H.S2.

				H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
11.	Rehabilitation	3	Issues of medical rehabilitation, learning its definitions, goals, methods and means as well as development history. Clinical examinations for the needs of rehabilitation, familiarization with the basic principles of comprehensive rehabilitation treatment programming. The issue of comprehensive rehabilitation of patients with locomotor dysfunctions, rehabilitation treatment of patients after acute trauma of the spine with neurological complications, rehabilitation treatment of patients after injuries of the locomotor system, comprehensive treatment improving the degenerative changes of the locomotor system and determination of its place in interdisciplinary proceedings (including surgical), conservative treatment of people with spinal diseases, rehabilitation in respiratory and cardiovascular diseases. The concept of disability. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W30. E.W31. E.U3. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U22. E.U23. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
12.	Laboratory diagnostics	4	Theoretical and practical basics of laboratory diagnostics as well as microbiological and parasitological diagnostics. Principles of diagnostic procedure in poisoning. Types of biological materials used in laboratory diagnostics and principles of taking material for tests. Using basic laboratory techniques, such as: qualitative analysis, titration, colorimetry, pH measurement, chromatography, electrophoresis of proteins and nucleic acids. Indications for the implementation of monitored therapy. Possibilities and limitations of laboratory tests in emergency. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	C.W19. C.W46. E.W1. E.W39. E.W40. E.W41. E.W42. B.U8. E.U16. E.U24.

				E.U28. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
13.	Clinical pharmacology	3	Basic principles of pharmacotherapy of elderly people's diseases. Possibilities of modern cancer therapy (including multimodal therapy), cell and gene therapy perspectives and their side effects. Principles of combination therapies in oncology, diagnostic and therapeutic algorithms in the most common human cancers. Indications for the implementation of monitored therapy. Individualisation of existing therapeutic guidelines and other methods of treatment against ineffectiveness or contraindications to standard therapy. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W10. E.W25. E.W26. E.W42. E.W43. E.U17. E.U18. E.U19. E.U31. E.U34. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
F.	**Clinical Sciences- Surgical treatment**	**50**		
1.	Anesthesiology and intensive care	5	The most common life-threatening conditions in children and principles of conduct in these conditions. Principles of pain treatment, including cancer and chronic pain. Possibilities and limitations of laboratory tests in emergency. Perioperative safety principles, patient preparation for surgery, general and local anaesthesia, and controlled sedation; The student knows postoperative treatment with analgesic therapy and postoperative monitoring. Indications and rules for the use of intensive care; The student knows the current guidelines for cardiopulmonary resuscitation of	E.W6. E.W29. E.W41. F.W4. F.W5. F.W6. F.W7. F.W13.

			newborns, children and adults. Causes, symptoms, principles of diagnosis and therapeutic procedure in the case of the most common central nervous system diseases. The basic issues of transplantology, indications for transplantation of irreversibly damaged organs and tissues, and related procedures. Rules for suspicion and recognition of brain death. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W14. F.W15. F.W16. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U21. E.U24. E.U25. E.U30. E.U32. E.U33. E.U34. E.U35. E.U36. E.U37. F.U3. F.U4. F.U9. F.U10. F.U11. F.U12. F.U21. F.U22. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
2.	General surgery	15	Characteristics of the surgical ward and learning the principles of the doctor's work in the surgical ward as well as cooperation with the diagnostic laboratory, radiology laboratory, microbiology and endoscopic laboratory. Principles of preparing the patient for urgent and planned surgery. Knowledge about wound healing. Effect of injury on the body and treatment of shock. Basics of nutritional treatment in surgery.	F.W1. F.W3 F.W7. F.W10. F.W14.

			The most common injuries of head, neck, chest, abdominal cavity, limbs and their consequences. Basic knowledge about burns and frostbites and the principles of dressing such wounds and knowledge about acute surgical abdominal diseases: acute appendicitis, acute cholecystitis, gastrointestinal obstruction, perforation of gastric and duodenal ulcer, peritonitis, and gastrointestinal bleeding. Knowledge about the most common cancers: lung cancer, breast cancer, colorectal cancer, stomach cancer; hernias, pancreatic diseases, cholelithiasis, portal hypertension and its complications; endocrine diseases - diseases of the thyroid gland, adrenal glands, multiple endocrine neoplasms; most common peripheral circulatory system diseases: acute and chronic lower limb ischemia, abdominal aortic aneurysm, chronic venous insufficiency of lower extremities. Principles of surgical treatment of coronary artery disease and valvular heart disease. The most common complications of surgical treatment and the principles of their prevention. Principles of organ transplantation. Mastering the knowledge on metabolic surgery. Treatment of surgical infections. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U30. E.U32. E.U35. E.U36. E.U38. F.U1. F.U2. F.U3. F.U4. F.U5. F.U6. F.U9. F.U12. F.U21. F.U22. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
3.	Paediatric Surgery	3	The specificity and distinctiveness of surgical diseases in children and adolescents. Preparation for the conditions of the paediatric surgery ward, the ability to recognize surgical diseases in children. Causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most common diseases in children requiring surgical interventions. Life threatening conditions in children and rules of conduct in these conditions. Perioperative safety rules. Principles of post-operative treatment with analgesic therapy and post-operative monitoring. Indications and principles of the use of intensive care in children. Guidelines on cardiopulmonary resuscitation in	E.W3. E.W4. E.W5. E.W6. F.W1. F.W2. F.W3. F.W4.

			newborns and children. Problems of transplantology in paediatrics. Taking medical history with the child and his family. Conducting: physical examination in a child of all ages; overall assessment, patient's state of consciousness and awareness. Assessment of newborns' condition (the Apgar scoring system) and their maturity and neonatal reflexes. Shaping the correct attitude of the doctor towards surgically ill children. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W5. F.W6. F.W7. F.W10. F.W13. F.W14. E.U2. E.U4. E.U7. E.U8. E.U9. E.U10. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. E.U21. E.U24. E.U25. E.U30. E.U32. E.U35. E.U36. F.U1. F.U2. F.U3. F.U4. F.U6. F.U7. F.U8. F.U9. F.U12. F.U21. F.U22. F.U23. F.U24. H.S1. H.S2. H.S3. H.S4. H.S5

				H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
4.	Orthopedics and traumatology	3	The specificity and distinctiveness of orthopaedic diseases. Preparation for the conditions of the orthopaedics and traumatology ward, the ability to recognize orthopaedic diseases. Causes, symptoms, principles of diagnosis and therapeutic procedures in relation to the most common diseases requiring surgical intervention, taking into account age differences. Selected issues in the field of paediatric surgery, including traumatology and otorhinolaryngology, defects and acquired diseases as an indication for surgical treatment in children. The principles of qualification and performance, and the most common complications of basic operations and invasive diagnostic and therapeutic procedures. Postoperative treatment with analgesic therapy and postoperative monitoring. Evaluation of radiological tests results in the most common types of fractures, especially long bone fractures. Limb immobilization, the type of immobilization necessary for use in typical clinical situations, and control of the right blood flow after applying the immobilizing dressing. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W1. F.W2. F.W3. F.W5. F.W10. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. E.U21. E.U24. E.U32. E.U35. E.U36. F.U1. F.U3. F.U4. F.U7. F.U8. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
5.	Oncological surgery	2	The role of surgery in the combination treatment of cancer (principles of oncological surgery). Principles of the surgeon's cooperation with a radiotherapist, chemotherapist and cooperation with a diagnostic laboratory, radiology laboratory, microbiological and endoscopic laboratory and pathomorphology laboratory. Principles of preparing	F.W3. F.W4. F.W5. F.W10.

			the patient for a surgery due to benign and malignant neoplasm. The most common complications of basic surgical procedures and invasive diagnostic and therapeutic procedures. Principles of perioperative safety, patient preparation for surgery, general and local anaesthesia, and controlled sedation. Problems of imaging examinations used today. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U21. E.U24. E.U30. E.U32. E.U35. F.U1. F.U3. F.U4. F.U6. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
6.	Urology	3	Knowledge of basic urological diseases and conditions (lithiasis, cancer, infections of both upper and lower male urinary and genital tracts), their symptomatology and diagnostic and therapeutic methods. Causes, symptoms, principles of diagnosis and therapeutic procedures in relation to the most common diseases requiring surgical intervention, taking into account the differences in the childhood urinary system. The principles of qualification and performance, and the most common complications of basic operations and invasive diagnostic and therapeutic procedures. Postoperative treatment with analgesic therapy and postoperative monitoring. Assisting in typical urological procedures. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W1. F.W3. F.W5. F.W10. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U21. E.U24. E.U32. E.U35. F.U1. F.U3. F.U4. F.U23.

				F.U24. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
7.	Otolaryngology	3	The most common diseases of ears, nose, throat and larynx with the basics of their diagnosis and treatment. Selected issues in otorhinolaryngology, birth defects and diseases being the indication for otorhinolaryngological treatment. The principles of qualification and performance, and the most common complications of basic surgical procedures and invasive diagnostic and therapeutic procedures in otolaryngology. Principles of postoperative care with analgesic therapy and postoperative monitoring. Problems of imaging examinations used today. Issues in the field of laryngology, phoniatrics and audiology. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W2. F.W3. F.W5. F.W10. F.W12. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U24. E.U32. E.U36. F.U1. F.U3. F.U4. F.U25. F.U26. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
8.	Emergency medicine and disaster medicine	2	Life-threatening conditions resulting from disease entities and injuries to individual	E.W6.

			human systems and organs. Principles of planning and organizing medical security in industrial, communication, chemical and ecological disasters, natural disasters and military threats. The most common life-threatening conditions in children and rules of conduct in these conditions. Causes, symptoms, principles of diagnosis and therapeutic procedure in relation to the most common diseases requiring surgical intervention, taking into account the distinctness of childhood. Principles of functioning of the integrated state emergency medical system. Problems of transplantology, indications for transplantation of irreversibly damaged organs and tissues, and related procedures. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W41. F.W1. F.W8. F.W10. F.W13. F.W14. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. E.U21. E.U24. E.U32. E.U36. E.U37. F.U1. F.U3. F.U4. F.U7. F.U8. F.U9. F.U10. F.U11. F.U21. F.U22. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
9.	Gynecology and obstetrics	6	Skills to provide qualified care for a woman in all periods of her life by using available modern diagnostic and therapeutic methods in the prevention and treatment of genitourinary diseases. Basic methods of foetus diagnosis and therapy. Knowledge about human sexuality and basic disorders related to it. Postoperative treatment with	E.W5. E.W21. F.W5. F.W9.

			analgesic therapy and postoperative monitoring. Woman's reproductive functions, disorders related to them as well as diagnostic and therapeutic procedures. Identification of indications for prenatal examinations. Assessment and description of the patient's somatic and mental state as well as life-threatening conditions. Identification of signs and symptoms that indicate an abnormal pregnancy. Interpretation of the results of a physical examination of a pregnant woman (arterial pressure, heart activity) and laboratory tests showing pregnancy pathologies and cardiotocography (CTG). Recognition of the beginning of labour and its incorrect duration. Signs and symptoms during childbirth. Establishing recommendations, indications and contraindications for the use of contraceptive methods. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W10. C.U2. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U32. F.U1. F.U3. F.U4. F.U13. F.U14. F.U15. F.U16. F.U17. F.U18. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
10.	Ophthalmology	2	Anatomy, physiology and pathophysiology of the visual system. The most important diagnostic methods of the visual system with disorders of the visual system, including neuro-ophthalmology. The principles of qualification and performance, and the most common complications of basic operations and invasive diagnostic and therapeutic procedures. Sight organ diseases. Problems of contemporary imaging examinations in ophthalmology. Performing ophthalmic screening. Diagnosis of ophthalmic conditions requiring immediate specialist assistance and providing initial, qualified assistance in cases of physical and chemical eye injuries. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W3. F.W5. F.W10. F.W11. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21.

				E.U24. E.U32. F.U1. F.U3. F.U4. F.U19. F.U20. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
11.	Neurosurgery	2	The specificity and distinctness of neurosurgical diseases in children and adolescents. Conditions of the neurosurgery ward, ability to recognize surgical diseases and basic neurological symptoms. Causes, symptoms, principles of diagnosis and therapeutic procedure in the most common diseases of the nervous system. Assisting in carrying out procedures and medical procedures related to neurosurgery. Shaping the correct attitude of the doctor towards patients after severe head trauma, patients with brain tumours and spinal cord diseases. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. E.W13. E.W14. E.U3. E.U6. E.U7. E.U12. E.U13. E.U14. E.U16. E.U17. E.U20. E.U21. E.U24. E.U30. E.U32. E.U35. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8.

				H.S9. H.S10. H.S11.
12.	Transplantology	1	Indications and principles of organ transplantation according to the current state of knowledge. Legal, ethical and moral aspects of organ transplantation from the living and deceased donor and transplant organization (POLTRANSPLANT). Information on quality of life, immunosuppressive treatment, occurrence and control of complications after organ transplantation. The basic issues of transplantology, indications for transplantation of irreversibly damaged organs and tissues, and related procedures. Rules for suspicion and recognition of brain death. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	F.W14. F.W15. E.U21. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
13.	Diagnostic imaging	3	Contemporary methods of imaging diagnostics and the possibilities of their use in the diagnostic algorithm. Principles of patient management and preparation for individual imaging tests. Indications and contraindications for individual diagnostic imaging methods and the principles of using contrast agents. Principles for evaluation and interpretation of obtained images and test results. Basic issues in the field of interventional radiology as well as radiobiology and radiological protection. Causes, symptoms, principles of diagnosis and therapeutic procedure in the case of the most common central nervous system diseases. The relationship between anatomical structures based on in vivo diagnostic tests, in particular in the field of radiology (review pictures, tests with contrast agents, computed tomography and nuclear magnetic resonance imaging). Harmfulness assessment of ionizing radiation dose. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W5. F.W1. F.W3. F.W10. F.W13. A.U4. B.U2. F.U3. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
G. Legal and organisational basis of medicine		**6**		
1.	Hygiene	1	Basic knowledge of hygiene. Skills to recognize health problems resulting from various environmental factors. Promoting a healthy lifestyle. The student knows the environmental conditions and nutrition rules in healthy and sick children, preventive vaccinations and keeping a routine health check-ups. The concept of public health, its goals, tasks, as well as the structure and organization of the health care system at the	E.W1. E.W2. G.W3. G.W4. G.U2.

			national and global level and the impact of economic conditions on health care options. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	G.U4. G.U5. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
2.	Epidemiology	1	Basic data on health phenomena in society and forecasting their impact on the functioning of health care, assessment of the state of health of the population based on epidemiological and demographic data. Determinants of health and disease, selected measures of population health and the possibilities of their use. Methods for identifying and examining risk factors, types of epidemiological studies to assess the health situation. Measure the incidence of diseases and disabilities and assess the epidemiological situation of selected diseases. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W1. G.W1. G.W2. G.W3. G.U1. G.U2. G.U3. G.U4. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
3.	Public health	1	Current state of knowledge about the social dimension of health and illness, the impact of the social environment (family, social networks) and social inequalities on health, as well as socio-cultural differences and the role of social stress in health and self-destructive behaviour. The importance of health, illness, disability and old age in relation to social attitudes, social consequences of illness and disability, and socio-cultural barriers. Principles of health promotion, its tasks and main directions of action, with particular emphasis on knowledge of the role of elements of a healthy lifestyle. Basic regulations regarding the organization and financing of health care, universal health insurance and the principles of the organization of healthcare institutions. Interpretation of measures of the incidence of diseases and disability. Assessment of the epidemiological situation of diseases commonly occurring in the country.	D.W1. D.W4. G.W4. G.W6. D.U2. G.U5. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6.

			The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	H.S7. H.S8. H.S9. H.S10. H.S11.
4.	Medical law	1	Knowledge about legal regulations for the provision of health services, patient rights, as well as exercising medical profession and the functioning of medical self-government. The principles of physician-patient privilege, legal requirements for keeping medical records and the scope of criminal, civil and professional liability of a physician. Legal regulations regarding the provision of health services, patient rights, the basics of practising medical profession and the functioning of medical self-government as well as basic regulations regarding the organization and financing of the health service, universal health insurance and the principles of organization of healthcare institutions. Legal obligations of a physician regarding a declaration of death. Regulations regarding medical experiment and conducting other medical research and regarding transplants, artificial procreation, abortion, aesthetic procedures, palliative treatment, and mental illnesses. Principles of pharmaceutical law and physician-patient privilege, keeping medical records, criminal, civil and professional liability of a physician. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.W22. G.W5. G.W6. G.W7. G.W8. G.W9. G.W10. G.W11. G.U5. G.U6. G.U8. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
5.	Forensic medicine	2	Basic issues in the field of forensic medical thanatology and forensic medical traumatology. Autopsy and forensic medical techniques. Types of forensic medical examinations of living persons and principles of preparing documentation of such examinations. Basic concepts and issues in the field of forensic medical toxicology with particular emphasis on narcotic drugs and stimulants, and forensic genetics issues. Medical and judicial decisions in criminal and civil lawsuits. Principles of forensic medical diagnostics and opinions on cases of infanticide and reconstruction of circumstances of a traffic accident. Taking material for toxicological and hemogenetic tests. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	G.W12. G.W13. G.W14. G.W15. G.W16. G.W17. G.W18. G.U5. G.U6. G.U7. G.U9. H.S1. H.S2. H.S3. H.S4. H.S5 H.S6.

				H.S7. H.S8. H.S9. H.S10. H.S11.
H. Clinical teaching and practice		**60**		
1.	Internal medicine	16	Preparing the student for: independent planning of diagnostic procedures and interpretation of its results; conducting differential diagnosis; planning therapeutic procedures and predicting the consequences of planned activities in hospital and outpatient clinic. Developing practical skills in the field of medical history, physical examination, symptomatology of internal diseases, performing basic diagnostic tests. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations; ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U1. E.U3. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U25. E.U26. E.U28. E.U29. E.U33. E.U34. E.U37. E.U38. F.U3. F.U5. F.U6. F.U10. G.U8. G.U9. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9.

				H.S10. H.S11.
2.	Pediatrics	8	Developing practical skills related to the specificity and distinctiveness of pathophysiology and the clinic of the course of diseases in children and adolescents. Mastering the theoretical foundations and practical skills in the diagnosis and therapy of paediatric diseases and secondary symptoms. Mastering the skill of taking medical history, physical examination of a child. Mastering the basics of interpretation of additional tests in children. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations; ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U2. E.U4. E.U7. E.U8. E.U9. E.U10. E.U11. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U25. E.U26. E.U27. E.U28. E.U29. E.U30. E.U31. E.U32. E.U33. E.U34. E.U37. E.U38. F.U3. F.U5. F.U6. F.U10. G.U7. G.U8. G.U9. H.S1. H.S2. H.S3. H.S4. H.S5.

				H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
3.	Surgery	8	Getting to know the characteristics of a surgical ward. Understanding the principles of doctor's work in the surgical ward. Getting to know the principles of cooperation with the diagnostic laboratory, radiology laboratory, microbiology and endoscopic laboratory. Learning the principles of perioperative care, including: preparing the patient for urgent and planned surgery as well as prevention and procedures of postoperative complications. Developing skills in the management of acute and chronic wounds. Acquiring the ability to manage acute conditions in surgery, including abdominal diseases: acute appendicitis, acute cholecystitis, gastrointestinal obstruction, perforation of gastric and duodenal ulcer, peritonitis, gastrointestinal bleeding. Developing skills in dealing with trauma patients, its impact on the body and treating shock, and in particular with the most common injuries of head, neck, chest and abdomen, limbs and their consequences. Acquiring the ability to assess the patient's nutritional state and conduct nutritional treatment in surgery. Acquiring the skills to assess, rules of dressing and treatment of burns and frostbites. Obtaining practical competence in the field of diagnostic and therapeutic procedures in the case of the most common cancers requiring surgical procedures, in particular: lung cancer, breast cancer, colorectal cancer, stomach cancer. Developing skills necessary in case of: hernia, pancreatic diseases, cholelithiasis, portal hypertension and its complications. Obtaining practical competences related to surgical procedures in relation to the most common endocrine system diseases - thyroid, adrenal gland diseases, multiple endocrine gland cancers. Obtaining practical competences related to surgical procedures in relation to the most common diseases of the peripheral circulatory system: acute and chronic ischemia of the lower limbs, abdominal aortic aneurysm, chronic venous insufficiency of the lower limbs. Developing practical competence in the field of surgical treatment of coronary artery disease and valvular heart disease. Obtaining practical skills on the principles of organ transplantation. Developing practical competence in the field of metabolic surgery. Obtaining practical competence in the field of prevention and treatment of surgical infections. Developing practical skills in taking medical history, physical examination, symptomatology of internal diseases, carrying out basic diagnostic tests. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations, ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U1. E.U3. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U25. E.U26. E.U28. E.U29. E.U30. E.U31. E.U32. E.U35. E.U36. E.U37. E.U38. F.U1. F.U2. F.U3. F.U4. F.U5. F.U6. F.U7. F.U8. F.U9. F.U10. F.U21. F.U22. F.U23.

				G.U8. G.U9. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
4.	Gynecology and obstetrics	4	Obtaining by the student the necessary skills to provide qualified care for a woman in all periods of her life by using available modern diagnostic and therapeutic methods in the prevention and treatment of genitourinary diseases. Preparing the student to understand and interpret: basics of gynaecology and obstetrics; rules for the organization and exercise of obstetric care for a woman during pregnancy and childbirth; principles of organization and conducting programs for the prevention and treatment of cancer of the female urogenital organs; results of diagnostic tests used in obstetrics and gynaecology; methods for promoting health and family planning in women. Preparing students to use the acquired knowledge in obstetrics and gynaecology in professional practice. Education in the use of medical vocabulary in communication with the patient: interview and transfer of basic information to the patient in relation to tests, procedures and medical procedures regarding treatment and care in obstetrics and gynaecology. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations; ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U1. E.U3. E.U7. E.U8. E.U12. E.U13. E.U14. E.U16. E.U18. E.U20. E.U21. E.U24. E.U26. E.U28. E.U29. E.U30. E.U32. E.U37. E.U38. F.U1. F.U2. F.U3. F.U5. F.U10. F.U13. F.U14. F.U15. F.U16. F.U17. F.U18. G.U6.

				H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
5.	Psychiatry	4	Obtaining knowledge about the specifics of work of a psychiatrist. Obtaining knowledge about the most common mental illnesses of adults and children. Gaining the ability to properly recognize, treat mental illnesses and communicate with the patient and his family. Preparation for work in an outpatient clinic and a psychiatric ward. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations; ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U1. E.U3. E.U5. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U26. E.U28. E.U29. E.U31. E.U32. E.U37. E.U38. F.U3. F.U5. F.U10. G.U8. G.U9. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6.

				H.S7. H.S8. H.S9. H.S10. H.S11.
6.	Emergency medicine	4	Familiarizing students with extended information on life-threatening conditions arising from disease entities and injuries to individual human systems and organs. Familiarizing students with the principles of planning and organization of medical security in industrial, communication, chemical and ecological disasters, natural disasters and military threats. Preparing students to implement adequate patterns of rescue procedures in certain life-threatening conditions. Developing the skills of managing a rescue operation in a rescue team. Preparing students to conduct medical, rescue and evacuation activities at the place of disaster and outside the area of operations and to cooperate with other rescue services. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations; ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U1. E.U2. E.U3. E.U4. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U26. E.U28. E.U29. E.U30. E.U31. E.U32. E.U33. E.U34. E.U36. E.U37. E.U38. F.U1. F.U2. F.U3. F.U4. F.U5. F.U6. F.U7. F.U8. F.U9. F.U10. F.U11. F.U21.

				F.U22. F.U23. G.U7. G.U8. G.U9. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
7.	Family medicine	4	Obtaining knowledge about the specifics of the doctor's work. Obtaining knowledge about the most common problems of paediatrics, adulthood, surgical and geriatric problems as well as family and environmental problems in primary health care. Developing skills to properly communicate with the patient and his family. Developing skills to create and manage family doctor practice. Preparation for work in the primary care outpatient clinic. Shaping attitudes: social in doctor-patient, doctor-therapeutic team relations; ethical in accordance with the principles of ethics; in accordance with legal regulations. The student is able to establish a therapeutic relationship with the patient and his/her family. Compliance with ethical principles arising from practising medical profession. The student shows motivation to broaden his/her knowledge.	E.U1. E.U2. E.U3. E.U4. E.U7. E.U9. E.U10. E.U11. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U26. E.U27. E.U28. E.U29. E.U30. E.U31. E.U32. E.U37. E.U38.

				F.U3. F.U4. F.U5. F.U6. F.U10. G.U4. G.U6. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
8.	Optional specialization choosen by the student	12		
GENERAL ACADEMIC COURSES		**7**		
1.	Latin	1	Anatomical, histological and embryological nomenclature in Latin. Grammar rules and lexis of the Latin language. Medical terminology and translation of medical and anatomical texts.	A.W1. A.U5. D.U17. H.S5. H.S7. H.S11.
2.	Library information	0	Basic knowledge about the functioning of the University Library. Rules for using collections and services of the University Library. Preparation for quick and accurate search of information needed to study. Practical search and ordering in an online catalogue. Basic terminology related to the functioning of the library and terminology used in the online catalogue.	D.W23 D.U17. H.S5. H.S7. H.S11.
3.	Elements of Health and Safety at Work and Ergonomics	0	General health and safety regulations in force at the University and rules of conduct in the event of various hazards. Requirements for organizing safe work, both in terms of the material work environment and human behaviour. Procedures to deal with accidents, during the action of dangerous, harmful and arduous factors, providing pre-medical assistance. Anticipating the effects of own behaviour in any job and other areas of activity. Knowledge necessary to organize work processes ensuring the safety of their participants.	G.W2. G.W5. G.U2. G.U8. H.S5. H.S7. H.S11.
Group of courses in the scope of students' support in the learning process Student chooses 3 courses, 2 ECTS points each - 6 ECTS points to obtain in total		6	Coping with stress	D.W12. D.U11. H.S5. H.S7.

			H.S11.
		Methods of learning support	D.W9. D.U16. H.S5. H.S7. H.S11.
		Coaching	D.W9. D.U11. H.S5. H.S7. H.S11.
		The psychology of personal development	D.W1. D.U11. H.S5. H.S7. H.S11.
		Yourself Management	D.W9. D.U11. D.U16. H.S5. H.S7. H.S11.
SAFETY IN HEALTHCARE FACILITIES	0		
Elements of Health and Safety in Healtcare Facilities	0	Analysis of dangerous, harmful and arduous factors at healthcare work places. The specificity of accidents at work, occupational diseases among people working in healthcare facilities. The use of ergonomics in healthcare facilities with referrence to patients' and staff's safety. Possibilities to reduce occupational risk at work places - analysis based on selected examples. Prevention of musculoskeletal dysfunction.	G.W2. G.W5. G.U2. G.U8 H.S11.
Epidemiological Safety	0	Preparation for work: outfit, hair, hands, personal protective equipment. Hand hygiene. Procedures after exposure to blood and other potentially infectious material (IPIM) that may transmit HBV, HCV, HIV infection. Selection and use of disinfectants. Procedure in case of surface contamination with organic matter. Handling of used material and medical equipment. Isolation procedure. Documentation on the prevention of hospital infections and infectious diseases.	G.W2. G.W5. G.U2. G.U8 H.S11.
Fire Safety	0	Fire safety rules in healthcare facilities. Fire protection conditions. Groups and sources of fires and their causes. Fire roads and fire safety of buildings. Fire safety instruction. Escape routes and passages. Evacuation regulations. Fire prevention at the workplace. Rules of behavior in the event of fire in the healthcare facility. Fire protection equipment.	G.W5. G.U8. H.S11.
ELECTIVE COURSES:	**32**		
Names of groups of courses should be given without listing their names. Names of courses can be given in the „Course content"		**List of elective courses**	

	Group of elective, directional courses During the course of study, student chooses 24 courses with 31 ECTS points in total, including those in the form of lectures adn classes or lectures. There are 55 elective courses in total to choose from.			
	.	1	Homeostatic imbalance of epithelial tissue	A.W1. A.W4. A.W5. A.U1. A.U2. A.U5. H.S5 H.S7. H.S10. H.S11.
		1	Tissue structure abnormalities	A.W1. A.W4. A.W5. A.U1. A.U2. A.U5. H.S5 H.S7. H.S10. H.S11.
		1	Human body structures in medical imaging	A.W1. A.W2. A.W3. A.U4. A.U5. H.S5 H.S7. H.S10. H.S11.
		1	Structural basis of cardiovascular interventions	A.W1. A.W2. A.U3. A.U4. A.U5. H.S5 H.S7. H.S10.

				H.S11.
		1	Evidence-Based Medicine (EBM)	B.W29. D.W23. E.W38. B.U13. D.U16. H.S5 H.S7. H.S10. H.S11.
		1	Genetically modified food	C.W10. E.U25. H.S5 H.S7. H.S10. H.S11.
		1	Molecular basis of sensory organs action	B.W7. B.U1. B.U6. H.S5 H.S7. H.S10. H.S11.
		1	Rational antibiotic therapy	C.W11. C.W13. C.W40. C.U10. C.U15. H.S5 H.S7. H.S10. H.S11.
		1	Genetic engineering	C.W10. E.W37. G.W8. C.U2. B.U10. H.S5 H.S7. H.S10. H.S11.
		1	Electrophysiology	B.W20. B.W21.

				B.U7. H.S5 H.S7. H.S10. H.S11.
		1	Medical apparatus	B.W6. B.W8. B.W9. B.U1. B.U2. B.U10. H.S5 H.S7. H.S10. H.S11.
		1	Oncological immunology	C.W24. C.W25. C.W27. C.U8. C.U11. C.U12. H.S5 H.S7. H.S10. H.S11.
		1	Haemostasis and thrombosis	B.W20. B.W21. B.U7. H.S5 H.S7. H.S10. H.S11.
		1	Propedeutics in dentistry	E.W1. E.W7. E.U1. E.U13. E.U16. H.S5. H.S7. H.S10. H.S11.
		1	Pathophysiology of kidney	C.W51. B.W23.

				B.W25. C.W9. C.W34. C.U11. H.S5. H.S7. H.S10. H.S11.
		1	Pathophysiology of pancreas	B.W15. B.W16. B.W17. B.W21. B.W25. A.U1. C.U20. B.U7. B.U8. B.U9. H.S5. H.S7. H.S10. H.S11.
		1	Modern microscopic techniques in medicine	A.W4. B.W18. A.U2. H.S5. H.S7. H.S10. H.S11.
		1	Crisis intervention	D.W1. D.W3. D.W5. D.W6. D.W9. D.W11. D.U2. D.U5. D.U7. D.U8. H.S5. H.S7. H.S10. H.S11.

		1	A sign language	D.W6. D.W4. D.U18. H.S5. H.S7. H.S10. H.S11.
		1	Active ingredients of living matter	B.W16. C.W47. C.W48. B.U7. B.U6. H.S5. H.S7. H.S10. H.S11.
		1	Pathomorphology of inflammatory diseases of different etiology	C.W28. C.W33. C.U11. H.S5. H.S7. H.S10. H.S11.
		1	Organ specifity of tumor pathological reports	C.W26. C.W29. C.U11. H.S5. H.S7. H.S10. H.S11.
		1	Pathology of the endocrine system	C.W26. C.W27. C.W31. C.W51. C.U11. C.U14. H.S5. H.S7. H.S10. H.S11.
		1	Pediatric dermatology	E.W35. E.U12. E.U14.

				E.U17. E.U24. E.U32. H.S5. H.S7. H.S10. H.S11.
		1	Pharmacoeconomics	C.W50. C.W48. C.W51. B.W23. B.W25. C.W7. C.W9. C.W29. C.W34. C.W45. C.U11. H.S5. H.S7. H.S10. H.S11.
		1	Bloodborne viral infections	C.W18. E.W34. G.W3. E.U26. H.S5. H.S7. H.S10. H.S11.
		1	Endoscopic and laparoscopic surgery	F.W1. F.W3. F.W4. F.W5. F.W7. F.W10. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17.

				E.U20. E.U21. E.U32. E.U38. H.S5. H.S7. H.S10. H.S11.
		1	Pediatrics- child cardiology	E.W3. E.W7. E.U2. E.U4. E.U12. E.U14. E.U16. E.U17. E.U18. H.S5. H.S7. H.S10. H.S11.
		1	Pain therapy	E.W29. F.W5. E.U16. E.U17. E.U19. H.S5. H.S7. H.S10. H.S11.
		1	Lung diseases	E.W1. E.W7. C.U12. E.U1. E.U2. E.U3. E.U13. E.U24. H.S5. H.S7. H.S10. H.S11.
		1	Vascular surgery	A.W1.

				A.W2. F.W3. F.W4. F.W5. F.W10. E.U1. E.U2. E.U3. E.U12. E.U14. E.U16. E.U20. F.U1. F.U2. F.U3. F.U4. G.U9. H.S5. H.S7. H.S10. H.S11.
		1	Pediatric endocrinology	E.W3. E.W7. E.U10. E.U16. E.U17. E.U18. H.S5. H.S7. H.S10. H.S11.
		2	Hypertensiology	E.W1. E.W7. E.U1. E.U3. E.U16. E.U17. E.U20. E.U32. H.S5. H.S7. H.S10. H.S11.

		2	Pediatric gastroenterology	E.W1. E.W3. F.W3. F.W4. F.U1. H.S5. H.S7. H.S10. H.S11.
		2	Allergology	C.W21. C.W23. C.W28. E.W1. E.W7. C.U18. C.U12. E.U1. E.U2. E.U12. E.U13. H.S5. H.S7. H.S10. H.S11.
		2	Intervention cardiology	E.W3. E.W7. E.U13. E.U14. E.U16. E.U17. E.U18. H.S5. H.S7. H.S10. H.S11.
		2	Clinical nutrition	E.W2. E.U25. H.S5. H.S7. H.S10. H.S11.
		2	Anesthesiology and intensive pediatric therapy	E.W6. E.W29.

				E.W41. F.W3. F.W4. F.W5. F.W6. F.W7. F.W8. F.W14. F.W15. E.U2. E.U4. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U25. E.U33. E.U34. F.U10. F.U11. F.U12. G.U7. G.U9. H.S5. H.S7. H.S10. H.S11.
		2	Combination Therapy	E.W25. E.W26. E.U16. E.U17. E.U18. H.S5. H.S7. H.S10. H.S11.
		2	Electrocardiography	B.W28. E.W7. E.U29. H.S5. H.S7. H.S10.

				H.S11.
		2	Pediatric traumatology	E.W6. E.W41. F.W1. F.W2. F.W3. F.W4. F.W5. F.W7. F.W8. F.W10. F.W13. F.W15. G.W12. A.U4. E.U36. F.U1. F.U2. F.U3. F.U4. F.U7. F.U8. F.U9. G.U7. H.S5. H.S7. H.S10. H.S11.
		2	Diagnostic imaging in emergency	A.W2. B.W8. F.W1. F.W10. A.U4. H.S5. H.S7. H.S10. H.S11.
		2	Radiotherapy	BW.9. E.W26. E.W27. E.W28. E.W29. F.W3.

				E.U16. E.U24. E.U32. H.S5. H.S7. H.S10. H.S11.
		2	The importance of genetic profiles in oncological treatment	C.W42. E.W24. E.W25. E.W39. E.W40. C.U3. H.S5. H.S7. H.S10. H.S11.
		2	Bariatric surgery	F.W1. F.W3. F.W4. F.W5. F.U1. F.U12. H.S5. H.S7. H.S10. H.S11.
		1	Adult psychiatry	E.W1. E.W15. E.W16. E.W17. E.W18. E.W19. E.W20. E.W22. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. H.S5.

				H.S7. H.S10. H.S11.
		1	Patient safety	G.W5. G.W6. G.W7. G.W8. G.W9. G.W11. G.W17. G.U5. G.U6. G.U8. H.S5. H.S7. H.S10. H.S11.
		1	Methodology of writing scientific papers	B.W26. B.W27. B.W28. B.W29. B.U10. B.U11. B.U12. B.U13. H.S5. H.S7. H.S10. H.S11.
		1	Metabolic diseases	E.W3. E.W7. E.U16. E.U17. E.U18. E.U20. E.U21. H.S5. H.S7. H.S10. H.S11.
		1	Pharmacogenetics	C.W1. C.W5. C.W8.

				C.W9. C.W11. C.W41. C.W42. C.W45. E.W25. E.W27. C.U3. C.U14. H.S5. H.S7. H.S10. H.S11.
		1	Child and adolescent psychiatry	E.W1. E.W15. E.W16. E.W17. E.W18. E.W19. E.W20. E.W22. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U20. H.S5. H.S7. H.S10. H.S11.
		1	Pediatric radiology	A.W2. B.W8. F.W1. F.W10. A.U4. H.S5. H.S7. H.S10. H.S11.
		8	Elective course-preparation for the Final Medical Examination: Internal medicine	Kody efektów analogicznie jak

			Pediatrics Surgery Gynecology and obstetrics Emergency medicine and intensive care Family medicine Psychiatry Bioethics and medical law Certification Public health	podane w przedmiotach podstawowych.
		1	The basics of coding and settlement of benefits under contracts with a public payer	G.W5. G.W6. G.W8. G.W9. G.W10. G.W11. G.U5. G.U6. G.U8. H.S5. H.S7. H.S10. H.S11.
		2	Development of competence in microsurgical techniques in medicine	E.W14. E.U7. E.U12. E.U13. E.U14. E.U16. E.U20. E.U21. E.U24. E.U32. F.U3. H.S5. H.S7. H.S10. H.S11.
HOLIDAY WORK PLAECEMENT (hours, principles, form)		**20**		
First aid and nursing – 120 hours after 2nd semester		4	Acquiring knowledge about the organization of the hospital ward. Familiarization with the principles of keeping medical records, in particular regarding admission to the ward, discharge and transfer. Understanding the scope and nature of nursing care in relation to a patient. Developing the skills to perform basic care procedures:	E.U28. E.U29. E.U30. F.U3.

		measuring basic parameters: temperature, pulse, blood pressure, breathing; techniques of hygiene procedures performed on the patient, feeding the patients; drawing blood for biochemical tests, peripheral puncture, carrying out test strips, measurement of blood glucose level using a glucometer, oral administration of drugs, subcutaneous and intramuscular injections, intravenous drip infusion, collection of nasal and throat swab. Developing the ability to establish communication and maintain proper behaviour and relationship with the patient and medical staff.	F.U5. F.U10. F.U12. G.U8. G.U9. D.U15. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
Out-patient health care – 90 hours after 4th semester	3	Acquiring knowledge about the specifics of the work of a primary care physician. Acquiring knowledge about the most common problems of paediatrics, adulthood, surgical and geriatric problems as well as family and environmental problems in primary health care. Developing skills to properly communicate with the patient and his family. Developing skills to create and manage family doctor practice. Preparation for work in the primary care outpatient clinic. Developing the ability to establish communication and maintain proper behaviour and relationship with the patient and medical staff. The student takes medical history from a child and his family; carries out full and targeted physical examination of an adult patient; assesses the general condition, the state of consciousness and awareness of the patient; compares anthropometric and blood pressure measurements with data on centile grids; carries out routine health checks. Developing skills to perform basic procedures; the student performs basic procedures and medical treatments, including: body temperature measurement, heart rate measurement, non-invasive blood pressure measurement; intravenous, intramuscular and subcutaneous injections, peripheral vein cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood collection; taking swabs from the nose, throat and skin, pleural puncture, standard resting electrocardiogram with interpretation; simple test strips and blood glucose measurement; the student collects material for tests used in laboratory diagnostics.	E.U2. E.U3. E.U7. E.U9. E.U10. E.U11. E.UI2. E.U13. E.U14. E.U16. E.U20. E.U24. E.U26. E.U28. E.U29. E.U30. E.U32. E.U38. F.U3. F.U5 F.U6. F.U10. G.U8. G.U9. D.U15. H.S1. H.S2.

			H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
Ambulatory care – 30 hours after 4th semester	1	Acquiring knowledge about the specifics of the work of an emergency physician. Acquiring knowledge about the most common paediatric, adulthood, surgical and geriatric problems occurring in emergency care. Developing skills to properly communicate with the patient and his family. Developing skills to create and manage a medical emergency team. Preparation for work in emergency conditions. Developing skills to establish communication and maintain proper behaviour and relationship with the patient and medical staff. The talks medical history from a child and his family; carries out a full and targeted physical examination of an adult patient; assesses the general condition, the state of consciousness and awareness of the patient; assesses and describes the patient's somatic and mental state; recognizes life-threatening states; recognizes the state after consumption of alcohol, drugs and other drugs; plans diagnostic, therapeutic and preventive measures; qualifies the patient for home and hospital treatment; interprets laboratory tests and identifies the causes of deviations; plans how to deal with exposure to a blood-borne infection. Developing skills to perform basic procedures. The student performs basic procedures and medical treatments, including: body temperature measurement, pulse measurement, non-invasive measurement of blood pressure; intravenous, intramuscular and subcutaneous injections, peripheral vein cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood collection; taking swabs from the nose, throat and skin, puncture of the pleural cavity; standard resting electrocardiogram with interpretation; simple test strips and blood glucose measurement; collects material for tests used in laboratory diagnostics.	E.U2. E.U3. E.U4. E.U7. E.U13. E.U14. E.U15. E.U16. E.U20. E.U24. E.U26. E.U28. E.U29. E.U30. E.U32. E.U35. E.U36. E.U38. F.U1. F.U2. F.U3. F.U4. F.U5. F.U6. F.U10. F.U11. F.U21. F.U22. G.U6. G.U8. G.U9. D.U15. H.S1. H.S2. H.S3.

			H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
Internal medicine – 120 hours after 6th semester	4	The student takes medical history form an adult patient; carries out full and targeted physical examination of an adult patient. The student assesses general condition, state of consciousness and awareness of the patient. The student conducts differential diagnosis of the most common diseases in adults and children. The student assesses and describes the patient's somatic and mental state. The student recognizes states of immediate threat to life; recognizes the state of consumption of alcohol, drugs and other drugs. The student plans diagnostic, therapeutic and preventive procedures; analyses the possible adverse reactions of individual drugs and their interactions; proposes individualization of current therapeutic guidelines and other methods of treatment against ineffectiveness or contraindications to standard therapy; recognizes the symptoms of drug dependence and proposes therapeutic treatment; qualifies the patient for home and hospital treatment. The student defines states in which the duration of life, functional state or preferences of the patient limit the conduct in accordance with the guidelines specified for the disease. The student interprets laboratory tests and identifies the causes of deviations. The student uses nutritional therapy (including enteral and parenteral nutrition); plans how to deal with exposure to a blood-borne infection. Takes samples for tests used in laboratory diagnostics; performs basic medical procedures and procedures, including: body temperature measurement, pulse measurement, non-invasive measurement of blood pressure; monitors vital signs using a cardiac monitor, pulse oximetry; spirometry, oxygen treatment, assisted and replacement ventilation; oropharyngeal tube insertion; intravenous, intramuscular and subcutaneous injections, peripheral vein cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood collection; taking swabs from the nose, throat and skin, puncture of the pleural cavity; bladder catheterization in both men and women, nasogastric intubation, gastric lavage, enema; standard resting electrocardiogram with interpretation, electrical cardioversion and cardiac defibrillation; simple test strips and blood glucose measurement. The student implements basic treatment in acute intoxication; monitors the condition of the patient who is poisoned by chemical substances or drugs; recognizes the patient's agony and declares his death; keeps patient's medical records; adheres to the principles of asepsis and antisepsis. The student inserts peripheral puncture; examines the nipples, lymph nodes, thyroid gland and abdominal cavity in terms of acute abdomen, and also carries out rectal examination; performs basic resuscitation procedures with the use of an automatic external defibrillator and other rescue operations as well as provides first aid; tries to avoid malpractice in his/her own actions; takes blood according to the rules for	E.U1. E.U3. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U25. E.U26. E.U28. E.U29. E.U33. E.U34. E.U37. E.U38. F.U3. F.U5. F.U6. F.U10. G.U8. G.U9. D.U15. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7.

		toxicological tests and protects the material for hemogenetic tests.	H.S8. H.S9. H.S10. H.S11.
Intensive care – 60 hours after 8th semester	2	The student takes medical history from a child and his family; carries out full and targeted physical examination of an adult patient; assesses the general condition, the state of consciousness and awareness of the patient; evaluates and describes the patient's somatic and mental state; recognizes states of immediate threat to life; plans diagnostic, therapeutic and preventive measures; defines states in which the duration of life, functional state or preferences of the patient limit the conduct in accordance with the guidelines set out for the disease; interprets laboratory tests and identifies the causes of deviations; plans to deal with exposure to a blood-borne infection; takes samples for tests used in laboratory diagnostics; performs basic medical treatments and procedures, including: body temperature measurement, pulse measurement, non-invasive measurement of blood pressure; monitoring of vital signs using a cardiac monitor, pulse oximetry; spirometry, oxygen treatment, assisted and replacement ventilation; oropharyngeal tube insertion; intravenous, intramuscular and subcutaneous injections, peripheral vein cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood collection; taking swabs from the nose, throat and skin, puncture of the pleural cavity; bladder catheterization in both men and women, nasogastric intubation, gastric lavage, enema; standard resting electrocardiogram with interpretation, electrical cardioversion and cardiac defibrillation; simple test strips and blood glucose measurement. The student assists in carrying out the following medical procedures: transfusion of blood and blood-borne products, pleural cavity drainage, pericardial sac puncture, peritoneal cavity puncture, lumbar puncture, thin-needle biopsy, epidermal tests, intradermal and scarification tests and interprets the results. The student plans specialist consultations; implements basic treatment in acute poisoning; monitors the condition of the patient who is poisoned by chemical substances or drugs; keeps patient's medical records; adheres to the principles of asepsis and antisepsis; inserts peripheral puncture; examines the nipples, lymph nodes, thyroid gland and abdominal cavity in terms of acute abdomen, and carries out rectal examination; performs basic resuscitation procedures using an automated external defibrillator and other emergency services, and provides first aid; acts in accordance with the current algorithm of advanced resuscitation. The student monitors the postoperative period based on basic life parameters; assesses the condition of the unconscious patient in accordance with applicable international point scales; recognizes the symptoms of increasing intracranial pressure; evaluates indications for suprapubic puncture and participates in its implementation. Draws blood for toxicological tests according to the rules and protects the material for hemogenetic tests.	E.U2. E.U3. E.U7. E.U13. E.U14. E.U16. E.U21. E.U24. E.U26. E.U28. E.U29. E.U30. E.U32. E.U33. E.U34. E.U38. F.U3. F.U5. F.U6. F.U10. F.U11. F.U12. F.U22. F.U23. G.U8. G.U9. D.U15. H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
Pediatrics – 60 hours after 8th semester	2	The student takes medical history form a child and his family; conducts physical examination of a child of all ages; assesses the general condition, the state of	E.U2. E.U4.

		consciousness and awareness of the patient; assesses the condition of the newborn	E.U7.
		with the Apgar score and assesses its maturity, tests newborn reflexes; collates	E.U8.
		anthropometric and blood pressure measurements with the data on the centile grids;	E.U9.
		evaluates the stage of puberty; carries out routine health checks; conducts differential	E.U10.
		diagnosis of the most common diseases of adults and children; assesses and describes	E.U11.
		the patient's somatic and mental state, recognizes states of immediate threat to life;	E.U12.
		recognizes the state after consumption of alcohol, drugs and other drugs; plans	E.U13.
		diagnostic, therapeutic and preventive procedures; analyses the possible side effects of	E.U14.
		individual drugs and their interactions; proposes the individualization of current	E.U15.
		therapeutic guidelines and other methods of treatment against ineffectiveness or	E.U16.
		contraindications to standard therapy; recognizes the symptoms of drug dependence	E.U17.
		and proposes therapeutic treatment; qualifies the patient for home and hospital	E.U18.
		treatment; defines states in which the duration of life, functional state or preferences	E.U19.
		of the patient limit the conduct in accordance with the guidelines set out for the	E.U20.
		disease, interprets laboratory tests and identifies the causes of deviations; uses	E.U21.
		nutritional therapy (including enteral and parenteral nutrition); plans how to deal with	E.U24.
		exposure to a blood-borne infection, qualifies the patient for vaccination, takes	E.U25.
		samples for tests used in laboratory diagnostics; performs basic medical procedures,	E.U26.
		including:	E.U27.
		body temperature measurement, pulse measurement, non-invasive measurement of	E.U28.
		blood pressure; monitoring of vital signs using a cardiac monitor, pulse oximetry;	E.U29.
		spirometry, oxygen treatment, assisted and replacement ventilation; oropharyngeal	E.U30.
		tube insertion; intravenous, intramuscular and subcutaneous injections, peripheral vein	E.U31.
		cannulation, peripheral venous blood collection, blood culture collection, arterial	E.U32.
		blood collection, arterialized capillary blood collection; taking swabs from the nose,	E.U33.
		throat and skin, puncture of the pleural cavity; bladder catheterization in both men	E.U34.
		and women, nasogastric intubation, gastric lavage, enema; standard resting	E.U37.
		electrocardiogram with interpretation, electrical cardioversion and cardiac	E.U38.
		defibrillation; simple test strips and blood glucose measurement. The student assists in	F.U3.
		carrying out the following medical treatments and procedures: transfusions of blood	F.U5.
		and blood-borne products; drainage of the pleural cavity; pericardial sac puncture;	F.U6.
		peritoneal cavity puncture; lumbar puncture; thin needle biopsy; epidermal tests;	F.U10.
		intradermal and scarification tests and interprets their results; interprets	G.U7.
		pharmaceutical characteristics of medicinal products and critically assesses advertising	G.U8.
		materials about medicines; plans specialist consultations; implements basic treatment	G.U9.
		in acute intoxication; monitors the condition of the patient poisoned by chemical	D.U15.
		substances or drugs; recognizes the agony of the patient and declares his death; keeps	H.S1.
		patient's medical records; adheres to the principles of asepsis and antisepsis; inserts	H.S2.
		peripheral puncture; examines the nipples, lymph nodes, thyroid gland and abdominal	H.S3.
		cavity in terms of acute abdomen, and also carries out rectal examination; performs	H.S4.
		basic resuscitation procedures using an automated external defibrillator and other	H.S5.
		emergency services, and provides first aid.	H.S6.
		During the examination of the child, the student recognizes behaviours and symptoms	H.S7.
		indicating the possibility of violence against the child. He tries to avoid malpractice in	H.S8.

		his own actions; draws blood for toxicological tests according to the rules and protects the material for hemogenetic tests.	H.S9. H.S10. H.S11.
Surgery – 60 hours after 10th semester	2	The student takes medical history from an adult patient; carries out full and targeted physical examination of an adult patient; assesses the general condition, the state of consciousness and awareness of the patient; conducts differential diagnosis of the most common diseases of adults and children; evaluates and describes the patient's somatic and mental state; recognizes states of immediate threat to life; recognizes the state after consumption of alcohol, drugs and other drugs; plans diagnostic, therapeutic and preventive procedures; analyses the possible side effects of individual drugs and their interactions; proposes the individualization of current therapeutic guidelines and other methods of treatment against ineffectiveness or contraindications to standard therapy; recognizes the symptoms of drug dependence and proposes therapeutic treatment; qualifies the patient for home and hospital treatment; defines states in which the duration of life, functional state or preferences of the patient limit the conduct in accordance with the guidelines set out for the disease; interprets laboratory tests and identifies the causes of deviations; uses nutritional therapy (including enteral and parenteral nutrition); plans how to deal with exposure to a blood-borne infection; takes samples for tests used in laboratory diagnostics; performs basic medical procedures, including: body temperature measurement, pulse measurement, non-invasive measurement of blood pressure; monitoring of vital signs using a cardiac monitor, pulse oximetry; spirometry, oxygen treatment, assisted and replacement ventilation; oropharyngeal tube insertion; intravenous, intramuscular and subcutaneous injections, peripheral vein cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood collection; taking swabs from the nose, throat and skin, puncture of the pleural cavity; bladder catheterization in both men and women, nasogastric intubation, gastric lavage, enema; standard resting electrocardiogram with interpretation, electrical cardioversion and cardiac defibrillation; simple test strips and blood glucose measurement. The student assists in carrying out the following medical treatments and procedures: transfusion of blood and blood products, pleural drainage, pericardial sac puncture, peritoneal cavity puncture, lumbar puncture, thin needle biopsy, epidermal tests, intradermal and scarification tests, and interprets their results. The student interprets pharmaceutical characteristics of medicinal products and critically assesses advertising materials about medicines; plans specialist consultations; evaluates pressure sores and applies appropriate dressings; does the right thing in the case of injuries (he puts on a dressing or immobilization, treats and sutures the wound); recognizes the agony of the patient and declares his death; keeps patient's medical records; assists in typical surgery, prepares the surgical field and administers local anaesthesia; uses basic surgical tools; adheres to the principles of asepsis and antisepsis; dresses simple wounds, puts on and changes a sterile surgical dressing; inserts peripheral puncture; examines the nipples, lymph nodes, thyroid gland and abdominal cavity in terms of acute abdomen, and also carries out rectal examination, evaluates the result of a	E.U1. E.U3. E.U7. E.U12. E.U13. E.U14. E.U15. E.U16. E.U17. E.U18. E.U19. E.U20. E.U21. E.U24. E.U25. E.U26. E.U28. E.U29. E.U30. E.U31. E.U32. E.U35. E.U36. E.U37. E.U38. F.U1. F.U2. F.U3. F.U4. F.U5. F.U6. F.U7. F.U8. F.U9. F.U10. F.U21. F.U22. F.U23. G.U8. G.U9. D.U15.

		radiological examination in terms of the most common fracture types, especially long bone fractures; performs temporary limb immobilization, selects the type of immobilization necessary in typical clinical situations and controls the correct blood supply to the limb after applying the immobilizing dressing; stops external bleeding. The student performs basic resuscitation procedures using an automatic external defibrillator and other rescue operations and provides first aid; assesses the condition of the unconscious patient in accordance with applicable international point scales; recognizes the symptoms of increasing intracranial pressure, evaluates indications for suprapubic puncture and participates in its implementation; tries to avoid malpractice in his/her own actions; draws blood for toxicological tests according to the rules and protects the material for hemogenetic tests.	H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
Gynecology and obstetrics – 60 hours after 10th semester	2	The student takes medical history from an adult patient; carries out full and targeted physical examination of an adult patient; assesses the general condition, the state of consciousness and awareness of the patient; assesses the condition of the newborn with the Apgar score and assesses its maturity, tests newborn reflexes; performs differential diagnosis of the most common diseases of adults and children; assesses and describes the patient's somatic and mental state, recognizes life-threatening states; plans diagnostic, therapeutic and preventive procedures; proposes the individualization of existing therapeutic guidelines and other methods of treatment against ineffectiveness or contraindications to standard therapy; qualifies the patient for home and hospital treatment; defines states in which the duration of life, functional state or preferences of the patient limit the conduct in accordance with the guidelines set out for the disease, interprets laboratory tests and identifies the causes of deviations; plans how to deal with exposure to a blood-borne infection; takes samples for tests used in laboratory diagnostics; performs basic medical procedures, including: body temperature measurement, pulse measurement, non-invasive measurement of blood pressure; monitoring of vital signs using a cardiac monitor, pulse oximetry; bladder catheterization in both men and women, nasogastric intubation, gastric lavage, enema. The student assists in carrying out the following medical treatments and procedures: transfusion of blood and blood-borne products, peritoneal cavity puncture, lumbar puncture, thin needle biopsy, epidermal tests, intradermal and scarification tests, and interprets their results. The student plans specialist consultations; recognizes the agony of the patient and declares his death; keeps patient's medical records, assists in typical surgery, prepares the surgical field and administers local anaesthesia; uses basic surgical tools; adheres to the principles of asepsis and antisepsis; inserts peripheral puncture; performs basic resuscitation procedures using an automated external defibrillator and other emergency services, and provides first aid; recognizes signs and symptoms that indicate an abnormal pregnancy (abnormal bleeding, uterine contractions); interprets the results of physical examination of a pregnant woman (arterial pressure, heart function) and the results of laboratory tests indicating pregnancy pathologies. The student interprets cardiotocography (CTG) results; recognizes the beginning of labour and its incorrect duration; interprets signs and symptoms during the childbirth; establishes	E.U1. E.U3. E.U7. E.U8. E.U12. E.U13. E.U14. E.U16. E.U18. E.U20. E.U21. E.U24. E.U26. E.U28. E.U29. E.U30. E.U32. E.U37. E.U38. F.U1. F.U2. F.U3. F.U5. F.U10 F.U13. F.U14. F.U15. F.U16. F.U17. F.U18. G.U8. D.U15.

		recommendations, indications and contraindications for the use of contraceptive methods, tries to avoid malpractice in his/her own actions.	H.S1. H.S2. H.S3. H.S4. H.S5. H.S6. H.S7. H.S8. H.S9. H.S10. H.S11.
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Full-time studies' students have to attend Physical Education – 60 hours – and there are no ECTS point assigned to it.
All students have to attend Elements of Health and Safety at Work and Ergonomics course – not less than 4 hours – within the scope concerning specificity of education at the university and type of equipment used during studies.
All students have to attend Library Information course – 2 hours.

14. METHODS OF VERIFICATION AND ASSESSMENT OF LEARNING OUTCOMES ACHIEVED BY THE STUDENT DURING WHOLE STUDIES:

Methods of verification and assessment of learning outcomes are coherent with the recommendations given in the education standards for medicine in the *Ordinance of the Minister of Science and Higher Education of 26th July 2019 concerning standards of education preparing for the profession of a doctor, dentist, pharmacist, nurse, midwife, laboratory diagnostician, physiotherapist and paramedic*.

1. Verification of achieved learning outcomes requires the use of various forms of testing which should be adequate for the scope of knowledge, skills and social competences to which outcomes refer.
2. Achieved learning outcomes whithin the scope of knowledge can be verified with written or oral exams.
3. Written exams could take the form of essays, repports, short structured questions, multiple choice questions (MCQ), multiple response questions (MRQ), choice tests Yes/No or answers matching.
4. Exams should be standardized and are targeted at verifying knowledge at the level higher than knowing particular issues only (the level of understanding issues, analitical skills and information processing as well as problem solving).
5. Verification of achieved learning outcomes within the scope of communication and procedural (manual) skills requires direct observation of the student who demonstrates skills during stanard clinical or standarized examination (Objective Structured Clinical Examination, OSCE) and their modifications (Mini-Cex). OSCE is recemmended especially as a form of verification of all the clinical skills which are acquired during practical clinical teaching on the fourth year.

Procedures providing the quality of education at the University are based on the guidelines described in legal acts regarding the Internal System for the Quality of Education. The main (directional) learning outcomes, included in the standard for the medical faculty, are implemented during individual courses. Compliance and implementation of outcomes is constantly verified by the Directional Team of Teaching Programmes for the field of medicine.

Verification of effectiveness of achieving the assumed learning outcomes is done by:

1) Assessment of the course descroption and verification of the assumed detailed learning outcomes withn the scope of knowledge, skills and social competences during individual courses.
2) Student internships - learning outcomes achieved during student internships are a complement to the education concept. The verification of outcomes takes place in accordance with the regulations of internships of individual faculties and the procedures of completing and documenting student internships. Student internships help to verify outcomes achieved during other courses and improve students' skills. The outcomes are verified according to the criteria included in the course description.
3) International student exchange - obtaining information from students about their knowledge, skills and social competences with referrence to staying at a partner university.
4) Achievements of scientific organizations - feedback through external reviews (scientific publications, speeches at conferences, scholarship granted by the Rector and the Minister).
5) Graduate surveys – getting feedback concerning acquired knowledge, skills and social competences and their usefulness on the labor market. Graduate surveys will be conducted for the first time after completion of academic year 2020/2021, when the first recruited students finisz their studies.
6) Employer opinion surveys – employers' opinions concerning training programmes, including assumed learning outcomes and methods of verifying them, especially regarding practical training.
7) Verification of classes preparing students to acquire in-depth knowledge and skills of conducting scientific research and using scientific achievements in practical activities.

The scope and level of assumed learning outcomes are verified systematically throughout the entire course of study through:

1) Constituent work - done by the student during whole studies: tests, final papers, reports, presentations, project - according to the tutor's instructions. All forms of credit are carried out on the basis of established principles.
2) Ceredit and credit with grade – tutor determines grades criteria, gives their components and explains the grade obtained by the student. The grading criteria and their components are specified in the course description.
3) Exams - questions prepared are consistent with the content of individual courses and are based on the standars determined for the field of medicine. Exam forms used in medicine: written, oral, practical. Exams are standardized and are aimed at checking knowledge, the ability to understand and analyze issues and solve clinical problems. The exam is carried out in the didactic room, in which it is possible for students to take seats in such a way as to work independently and in comfort. The person conducting the exam has the right to interrupt or annul the exam if the student's work is not independent (the student uses unauthorized materials, devices and other people's help).
4) Evaluation of examination session results. Student results from each examination session are analyzed in quantitative and qualitative terms and are used to improve teaching process.

5) Students' periodic assessment of classes. The results obtained from surveys are discussed in general terms at the meetings of the Institute's employees. Individual assessments of the Institute's research and teaching staff are presented directly to the people concerned in accordance with data security rules, and are then discussed and analyzed in terms of improving the quality of education.
6) Classes observations made by the Head of the Institute or heads of units.
7) Close cooperation of employees who conduct various forms of classes within a given course or group of courses.
8) Systematic control of learning outcomes in the form of papers, tests, students' projects. The results are available to students and discussed in detail during classes and consultations.

Forms and methods of conducting classes as well as grade criteria and their components are specified in the course description.

All forms of verification of student achievements obtained during classes in particular semester are recorded in the student's periodic achievement sheets.