

Symbol	Major-related learning outcomes Upon graduation, a graduate:	Reference to learning outcomes in the area of studies
with regard to knowledge he/she knows and understands		
A.W01.	knows the anatomical, histological and embryological names in Polish and English	-
A.W02.	knows the structure of the human body in the topographic approach (upper and lower limb, chest, abdomen, pelvis, back, neck, head) and functional approach (osteoarticular system, muscular system, circulatory system, respiratory system, digestive system, urinary system, reproductive systems, nervous system and sensory organs, joint integument)	-
A.W03.	describes the topographic relationships between individual organs	-
A.W04.	knows the basic cell structures and their functional specializations	-
A.W05.	knows the microarchitecture of tissues, extracellular matrix and organs	-
A.W06.	knows the stages of development of the human embryo, the structure and function of the membranes and the placenta, and the stages of development of individual organs	-
B.W01.	describes the water and electrolyte balance in biological systems	-
B.W02.	describes the acid-base balance and the mechanism of action of buffers and their importance in systemic homeostasis	-
B.W03.	knows and understands the terms: solubility, osmotic pressure, isotony, colloidal solutions and Gibbs-Donnan equilibrium	-
B.W04.	knows the basic reactions of inorganic and organic compounds in aqueous solutions	-
B.W05.	knows the physical laws describing fluid flow and the factors influencing the vascular resistance of blood flow	-
B.W06.	knows the natural and artificial sources of ionizing radiation and its interaction with matter	-
B.W07.	knows the physicochemical and molecular basis of the sensory organs	-
B.W08.	knows the physical basics of non-invasive imaging methods	-
B.W09.	knows the physical basics of selected therapeutic techniques, including ultrasound and radiation	-
B.W10.	knows the structure of simple organic compounds that are part of macromolecules present in cells, extracellular matrix and body fluids	-
B.W11.	describes the structure of lipids and polysaccharides and their functions in cellular and extracellular structures	-
B.W12.	characterizes the primary, secondary, tertiary and quaternary structures of proteins, knows the post-translational and functional modifications of proteins and their importance	-
B.W13.	knows the functions of nucleotides in the cell, the primary and secondary structures of DNA and RNA and the structure of chromatin	-
B.W14.	knows the functions of the human genome, transcriptome and proteome and the basic methods used in their study, describes the processes of DNA replication, repair and recombination, transcription and translation as well as degradation of DNA, RNA and proteins, knows the concepts of gene expression regulation	-
B.W15.	describes the basic catabolic and anabolic pathways, methods of their regulation and the influence of genetic and environmental factors	-
B.W16.	knows the metabolic profiles of basic organs and systems	-
B.W17.	knows the terms: the oxidative potential of the organism and oxidative stress	-

B.W18.	knows the enzymes involved in digestion, the mechanism of hydrochloric acid production in the stomach, the role of bile, the absorption of digestive products and related disorders	-
B.W19.	knows the consequences of improper nutrition, including long-term starvation, eating too abundant meals and using an unbalanced diet	-
B.W20.	knows the consequences of a deficiency of vitamins or minerals and their excess in the body	-
B.W21.	knows the methods of communication between cells, and between the cell and the extracellular matrix as well as the signaling pathways in the cell and examples of disorders in these processes leading to the development of neoplasms and other diseases	-
B.W22.	knows processes such as: the cell cycle, proliferation, cell differentiation and aging, apoptosis and necrosis and their importance for the functioning of the body	-
B.W23.	knows the basic issues of stem cells and their application in medicine	-
B.W24.	knows the basics of stimulation and conduction in the nervous system and higher nervous functions, as well as the physiology of striated and smooth muscles and blood functions	-
B.W25.	knows the activity and mechanisms of regulation of all organs and systems of the human body, including the circulatory, respiratory, digestive, urinary and skin integuments, and understands the relationships between them	-
B.W26.	knows the mechanism of action of hormones and the consequences of disturbances in hormonal regulation	-
B.W27.	knows the course and regulation of reproductive functions in women and men	-
B.W28.	knows the aging mechanisms of the organism	-
B.W29.	knows the basic quantitative parameters describing the efficiency of individual systems and organs, including: the range of the norm and demographic factors influencing the value of these parameters	-
B.W30.	knows the relationship between factors disturbing the balance of biological processes and physiological and pathophysiological changes	-
B.W31.	knows the basic IT and biostatistic methods used in medicine, including medical databases, spreadsheets and the basics of computer graphics	-
B.W32.	knows the basic methods of statistical analysis used in population and diagnostic studies	-
B.W33.	knows the possibilities of modern telemedicine as a tool supporting the work of a doctor	-
B.W34.	knows the principles of scientific, observational and experimental research as well as in vitro research for the development of medicine	-
C.W01.	knows the basic concepts of genetics	-
C.W02.	describes the phenomena of gene coupling and interaction	-
C.W03.	describes the normal human karyotype and different types of sex determination	-
C.W04.	describes the structure of chromosomes and the molecular basis of mutagenesis	-
C.W05.	knows the rules of inheriting a different number of traits, inheriting quantitative traits, independent inheritance of traits and inheriting non-nuclear genetic information	-
C.W06.	knows the genetic determinants of human blood groups and the serological conflict in the Rh system	-
C.W07.	describes the aberrations of autosomes and heterosomes that cause diseases, including cancer and oncogenesis	-

C.W08.	knows the factors influencing the primary and secondary genetic balance of the population	-
C.W09.	knows the basics of diagnostics of gene and chromosomal mutations responsible for hereditary and acquired diseases, including cancer	-
C.W10.	identifies the benefits and risks of the presence of genetically modified organisms (GMOs) in the ecosystem	-
C.W11.	knows the genetic mechanisms of acquiring drug resistance by microorganisms and neoplastic cells	-
C.W12.	classifies microorganisms, taking into account pathogenic and present in the physiological flora	-
C.W13.	knows the epidemiology of infections with viruses, bacteria and infections with fungi and parasites, taking into account the geographical range of their occurrence	-
C.W14.	knows the impact of abiotic and biotic (viruses, bacteria) environmental factors on the human body and the human population and the ways of their penetration into the human body describes the consequences of exposure of the human body to various chemical and biological factors and the principles of prevention	-
C.W15.	knows the forms or developmental stages of selected parasitic fungi, protozoa, helminths and arthropods invasive for humans, taking into account the geographical range of their occurrence	-
C.W16.	discusses the functioning of the parasite-host system and knows the basic disease symptoms caused by parasites	-
C.W17.	knows the symptoms of iatrogenic infections, the way they spread and the pathogens causing changes in individual organs	-
C.W18.	knows and understands the basics of microbiological and parasitological diagnostics	-
C.W19.	knows the basics of disinfection, sterilization and aseptic procedures	-
C.W20.	knows the basics of development and mechanisms of the immune system, including specific and non-specific mechanisms of humoral and cellular immunity	-
C.W21.	describes the major histocompatibility pattern	-
C.W22.	knows the types of hypersensitivity reactions, types of immunodeficiency and the basics of immunomodulation	-
C.W23.	knows the issues of cancer immunology	-
C.W24.	defines the genetic basis of donor and recipient selection and the basis of transplant immunology	-
C.W25.	knows the pathomorphological nomenclature	-
C.W26.	knows the basic mechanisms of cell and tissue damage	-
C.W27.	describes the clinical course of specific and non-specific inflammations and describes the processes of tissue and organ regeneration	-
C.W28.	knows the definition and pathophysiology of shock, with particular emphasis on the differentiation of causes of shock and multi-organ failure	-
C.W29.	knows the etiology of hemodynamic disorders, retrograde changes and progressive changes	-
C.W30.	knows the issues of detailed organ pathology, macro- and microscopic images and the clinical course of pathomorphological changes in individual organs	-
C.W31.	describes the consequences of developing pathological changes for topographically adjacent organs	-
C.W32.	lists external and internal pathogens, modifiable and non-modifiable	-

C.W33.	lists the clinical forms of the most common diseases of individual systems and organs, metabolic diseases as well as disorders of the water-electrolyte and acid-base balance	-
C.W34.	characterizes particular groups of therapeutic agents	-
C.W35.	knows the main mechanisms of drug action and their age-dependent changes in the system	-
C.W36.	determines the influence of disease processes on the metabolism and elimination of drugs	-
C.W37.	knows the basic principles of pharmacotherapy	-
C.W38.	knows the more important side effects of drugs, including those resulting from their interactions	-
C.W39.	understands the problem of drug resistance, including multi-drug resistance	-
C.W40.	knows the indications for genetic tests carried out in order to individualize pharmacotherapy	-
C.W41.	knows the basic directions of therapy development, in particular the possibilities of cell therapy as well as gene and targeted therapy in specific diseases	-
C.W42.	knows the basic concepts of general toxicology	-
C.W43.	knows the groups of drugs, the abuse of which can lead to poisoning	-
C.W44.	knows the symptoms of the most common acute poisonings, including alcohol, drug and other psychoactive substances, heavy metals and selected groups of drugs	-
C.W45.	knows the basic principles of diagnostic procedures in poisoning	-
D.W01.	knows the current state of knowledge about the social dimension of health and disease, 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 behavior	-
D.W02.	knows the forms of violence, models explaining violence in the family and in institutions, social conditions of various forms of violence and the role of the doctor in recognizing it	-
D.W03.	understands the importance of health, disease, disability and old age in relation to social attitudes, social consequences of disease and disability as well as socio-cultural barriers, and knows the current concept of health-related quality of life	-
D.W04.	understands the importance of verbal and non-verbal communication in the process of communicating with patients and the concept of trust in interaction with the patient	-
D.W05.	understands the psychosocial consequences of hospitalization and chronic disease	-
D.W06.	understands the functioning of medical institutions and the social role of a doctor	-
D.W07.	knows the basic psychological mechanisms of human functioning in health and disease	-
D.W08.	understands the role of the family in the treatment process	-
D.W09.	knows the issues of adaptation to a disease as a difficult situation, stages of adaptation to threatening events and patients' needs, dying and the family mourning process	-
D.W10.	knows the role of stress in the etiopathogenesis and course of diseases, and recognizes the mechanisms of coping with stress	-
D.W11.	knows the mechanisms, goals and methods of treating addiction to psychoactive substances	-

D.W12.	knows the principles of motivating patients to pro-health behavior and informing about unfavorable prognosis	-
D.W14.	knows the principles of altruism and clinical responsibility and is aware of the principles of the therapeutic team	-
D.W15.	knows the rules of working in a group	-
D.W16.	understands the cultural, ethnic and national determinants of human behavior	-
D.W17.	knows the history of the beginnings of medicine, the medicine of primitive peoples and the most ancient civilizations, as well as the characteristic features of medieval medicine	-
D.W18.	knows the features of modern medicine and its most important discoveries	-
D.W19.	knows the process of shaping new medical disciplines and the achievements of leading representatives of Polish and world medicine	-
D.W20.	knows the basics of evidence-based medicine	-
E.W01.	knows the environmental and epidemiological conditions of the most common diseases	-
E.W02.	knows the rules of feeding healthy and sick children, preventive vaccinations and keeping a health balance of a child	-
E.W03.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the case of the most common diseases of children: a) rickets, tetany, seizures, b) heart defects, myocarditis, endocarditis and pericarditis, cardiomyopathy, arrhythmias, heart failure, arterial hypertension, syncope, c) acute and chronic diseases of the upper and lower respiratory tract, congenital defects of the respiratory system, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, angioedema, d) anemia, hemorrhagic diathesis, states of bone marrow failure, diseases childhood cancer, including solid tumors typical of childhood, e) acute and chronic abdominal pain, vomiting, diarrhea, constipation, gastrointestinal bleeding, peptic ulcer disease, inflammatory bowel diseases, pancreatic diseases, cholestasis and liver diseases, and other acquired diseases and congenital malformations of the gastrointestinal tract, f) urinary tract infections, urinary tract disorders, nephrotic syndrome, nephrolithiasis, acute and chronic renal failure, acute and chronic nephritis, systemic kidney diseases, urination disorders, vesicoureteral reflux disease, g) growth disorders, thyroid and parathyroid diseases, adrenal gland diseases, diabetes, obesity, disorders of maturation and gonadal function, h) cerebral palsy, encephalitis and meningitis, epilepsy, i) the most common infectious diseases in childhood, j) genetic syndromes, k) connective tissue diseases, rheumatic fever, juvenile arthritis, systemic lupus, dermatomyositis	-
E.W04.	knows the issues of: abused child and sexual abuse, mental retardation, behavioral disorders: psychoses, addictions, eating disorders and excretion in children	-
E.W05.	knows the basic methods of fetal diagnosis and therapy	-
E.W06.	knows the most common life-threatening conditions in children and the rules of conduct in these states	-
E.W07.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common internal diseases occurring in adults and their complications: a) cardiovascular diseases, including: ischemic heart disease, heart defects, endocardial diseases, heart muscle, pericardium, heart failure (acute and chronic), arterial and venous diseases, arterial hypertension: primary and secondary, pulmonary hypertension, b) respiratory system diseases, including: respiratory tract diseases, chronic obstructive pulmonary disease, bronchial asthma,	-

	bronchiectasis, cystic fibrosis, infections of the respiratory system, interstitial diseases of the lungs, pleura, mediastinum, obstructive and central sleep apnea, respiratory failure (acute and chronic), cancers of the respiratory system, c) diseases of the digestive system, including diseases of the oral cavity, esophagus, stomach and duodenum, intestines, pancreas, liver, bile ducts and gallbladder, d) diseases of the organ system internal pouring, including diseases of the hypothalamus and pituitary gland, thyroid gland, parathyroid glands, cortex and medulla of the adrenal glands, ovaries and testes, as well as neuroendocrine tumors, polygland syndromes, various types of diabetes and metabolic syndrome: hypoglycemia, obesity, dyslipidemia, e) kidney diseases and urinary tract, including: acute and chronic renal failure, glomerular and interstitial kidney diseases, kidney cysts, kidney stones, urinary tract infections, urinary system neoplasms, in particular bladder cancer and kidney cancer, f) hematopoietic system diseases, including : marrow aplasia, anemia, granulocytopenia and agranulocytosis, thrombocytopenia, acute leukemias, myeloproliferative neoplasms and myelodysplastic-myeloproliferative neoplasms, myelodysplastic syndromes, neoplasms from mature B and T lymphocytes, bleeding disorders, thrombophilic life-threatening conditions, life-threatening conditions in hematology diseases of other organs, g) rheumatic diseases h, including: systemic diseases of connective tissue, systemic vasculitis, arthritis with spine involvement, metabolic bone diseases, in particular osteoporosis and osteoarthritis, gout, h) allergic diseases, including: anaphylaxis and anaphylactic shock and angioedema , i) water-electrolyte and acid-base disorders: states of dehydration, states of hyperhydration, electrolyte disturbances, acidosis and alkalosis	
E.W08.	knows and understands the course and symptoms of the aging process, as well as the principles of a comprehensive geriatric assessment and interdisciplinary care in relation to an elderly patient	-
E.W09.	understands the causes and knows the basic differences in the most common diseases occurring in the elderly and the rules of conduct in basic geriatric syndromes	-
E.W10.	knows and understands the basic principles of pharmacotherapy of elderly diseases	-
E.W11.	knows and understands the dangers of hospitalization of elderly people	-
E.W12.	knows and understands the basic principles of the organization of care for an elderly person and the burden of an elderly carer	-
E.W13.	knows and distinguishes the basic complexes of neurological symptoms	-
E.W14.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the most common diseases of the nervous system, including: a) headaches: migraine, tension headache, headache syndromes and V nerve neuralgia, b) vascular diseases of the brain, in particular stroke , c) epilepsy, d) infections of the nervous system, in particular meningitis, Lyme disease, herpetic encephalitis, neurotransmission diseases, e) dementia, in particular Alzheimer's disease, frontal dementia, vascular dementia and other dementia syndromes, f) diseases basal ganglia, in particular Parkinson's disease, g) demyelinating diseases, in particular multiple sclerosis, h) diseases of the neuromuscular system, in particular amyotrophic lateral sclerosis and sciatica, i) craniocerebral injuries, in particular concussion	-
E.W15.	knows the basic concepts of the pathogenesis of mental disorders	-
E.W16.	knows the general symptomatology of mental disorders and the principles of their classification according to the main classification systems	-
E.W17.	knows the symptoms, principles of diagnosis and therapeutic management in the most common mental illnesses, including: a) schizophrenia, b) affective and	-

	adaptive disorders, c) eating disorders, d) disorders related to the use of psychoactive substances	
E.W18.	knows the principles of diagnostics and procedures in emergency psychiatry	-
E.W19.	knows the specificity of mental disorders and their treatment in children, adolescents and in old age	-
E.W20.	knows the symptoms of mental disorders in the course of somatic diseases, their impact on the course of the underlying disease and prognosis, and the principles of their treatment	-
E.W21.	has knowledge about human sexuality and basic disorders related to it	-
E.W22.	knows the provisions on mental health protection, with particular emphasis on the rules of admission to a psychiatric hospital	-
E.W23.	knows the environmental and epidemiological conditions of the most common human cancers	-
E.W24.	knows the basics of early cancer detection and the principles of screening in oncology	-
E.W25.	knows the possibilities of modern cancer therapy (including multimodal therapy), the prospects of cell and gene therapy and their undesirable effects	-
E.W26.	knows the principles of combination therapies in oncology, diagnostic and therapeutic algorithms in the most common human neoplasms	-
E.W27.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the most common problems of palliative medicine, including: a) symptomatic treatment of the most common somatic symptoms, b) treatment of neoplastic cachexia and the prevention and treatment of bedsores, c) the most common emergency conditions in palliative medicine	-
E.W28.	knows the rules of palliative management with a terminally ill patient	-
E.W29.	knows the principles of pain management, including cancer and chronic pain	-
E.W30.	knows and understands the concept of disability, invalidity and disability	-
E.W31.	knows the role and methods used in medical rehabilitation	-
E.W32.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic and prophylactic management in the most common bacterial, viral, parasitic and mycotic diseases, including pneumococcal infections, viral hepatitis, acquired immune deficiency AIDS, sepsis and nosocomial infections	-
E.W33.	knows the basic features, environmental and epidemiological conditions of the most common human skin diseases	-
E.W34.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the most common sexually transmitted diseases	-
E.W35.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the most common hereditary diseases	-
E.W36.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the most common diseases and specific problems in the practice of a family doctor	-
E.W37.	knows the types of biological materials used in laboratory diagnostics and the rules of collecting material for research	-
E.W38.	knows the theoretical and practical foundations of laboratory diagnostics	-
E.W39.	knows and understands the possibilities and limitations of laboratory tests in emergencies	-
E.W40.	lists indications for the implementation of monitored therapy	-
E.W41.	defines basic pharmacoeconomic concepts	-
F.W01.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring	-

	surgical intervention, taking into account the distinctiveness of childhood, including in particular: a) acute and chronic abdominal diseases, b) chest diseases, c) limbs and head, d) bone fractures and organ injuries	
F.W02.	knows selected issues in the field of pediatric surgery, including traumatology and otorhinolaryngology, acquired defects and diseases which are an indication for surgical treatment in children	-
F.W03.	knows the rules of qualification and performance as well as the most common complications of basic surgical procedures and invasive diagnostic and therapeutic procedures	-
F.W04.	knows the principles of perioperative safety, patient preparation for surgery, general and local anesthesia and controlled sedation	-
F.W05.	knows postoperative treatment with analgesic therapy and postoperative monitoring	-
F.W06.	knows the indications and principles of intensive therapy	-
F.W07.	knows the current guidelines for cardiopulmonary resuscitation in newborns, children and adults	-
F.W08.	knows the principles of operation of the integrated system of state medical rescue	-
F.W09.	knows the reproductive functions of a woman, related disorders as well as diagnostic and therapeutic procedures regarding in particular: a) the menstrual cycle and its disorders, b) pregnancy, c) physiological and pathological delivery and puerperium, d) inflammations and neoplasms within the genital organs, e) birth control, f) menopause, g) basic diagnostic methods and gynecological procedures	-
F.W10.	knows the problems of currently used imaging tests, in particular: a) radiological symptomatology of basic diseases, b) instrumental methods and imaging techniques used to perform therapeutic procedures, c) indications, contraindications and preparation of patients for particular types of imaging tests and contraindications to the use of contrast agents	-
F.W11.	knows eye diseases, in particular: a) knows and explains the causes, symptoms, principles of diagnosis and therapeutic management in the most common ophthalmic diseases, b) knows ophthalmic complications of systemic diseases along with their ophthalmic symptomatology and correct methods of treatment in these cases, c) management surgical in individual eye diseases, d) knows the basic groups of drugs used in ophthalmology, their side effects and interactions, e) knows the groups of generally used drugs with complications and contraindications, and explains their mechanism	-
F.W12.	knows the issues of laryngology, phoniatrics and audiology, including: a) causes, clinical course, methods of treatment, complications and prognosis in diseases of the ear, nose, paranasal sinuses, oral cavity, pharynx and larynx in adults, b) diseases of the facial nerve and selected structures of the neck, c) principles of diagnostic and therapeutic procedures in mechanical injuries of the ear, nose, larynx and esophagus, d) principles of emergency procedures in otorhinolaryngology, in particular in laryngeal dyspnea, e) principles of diagnostic and therapeutic management in hearing disorders, voice and speech, f) principles of diagnostic and therapeutic procedures in head and neck cancers	-
F.W13.	knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in the case of the most common diseases of the central nervous system in the field of: a) cerebral edema and its consequences, with particular emphasis on emergencies, b) other forms of intracranial tightness with their consequences, c) cranial injuries - cerebral disorders, d) vascular defects of the central nervous system, e) neoplastic tumors of the central nervous system, f) diseases of the spine and spinal cord	-

F.W14.	knows the basic issues of surgical transplantation, indications for the transplantation of irreversibly damaged organs and tissues and related procedures	-
F.W15.	knows the principles of suspecting and recognizing brain death	-
G.W01.	knows the methods of assessing the health of an individual and population, various disease classification systems and medical procedures	-
G.W02.	knows the methods of identifying and examining risk factors, advantages and disadvantages of various types of epidemiological studies as well as measures proving the presence of a cause-and-effect relationship	-
G.W03.	knows the epidemiology of infectious and chronic diseases, how to prevent their occurrence at different stages of the natural history of the disease and the role of epidemiological surveillance	-
G.W04.	knows the concept of public health, its goals, tasks, as well as the structure and organization of the health care system at the national and global level and the impact of economic conditions on the possibilities of health	-
G.W05.	knows the principles of health promotion, its tasks and main directions of action, with particular emphasis on the knowledge of the role of the elements of a healthy lifestyle	-
G.W06.	knows the legal regulations regarding the provision of health services, patient rights, the basics of practicing the medical profession and the functioning of the medical self-government	-
G.W07.	knows the basic regulations concerning the organization and financing of the health service, general health insurance and the rules of organization of medical entities	-
G.W08.	knows the legal obligations of a doctor in the field of death confirmation	-
G.W09.	knows the regulations concerning a medical experiment and conducting other medical research	-
G.W10.	knows the legal regulations regarding transplants, artificial procreation, abortion, aesthetic procedures, palliative treatment, mental diseases	-
G.W11.	knows the principles of pharmaceutical law	-
G.W12.	knows the rules of medical confidentiality, keeping medical records, criminal, civil and professional liability of a doctor	-
G.W13.	interprets the measures of the incidence of diseases and disabilities, assesses the epidemiological situation of diseases commonly occurring in the country	-
G.W14.	knows and understands the concepts of violent death and sudden death, as well as the difference between the concepts of trauma and injury	-
G.W15.	knows the legal basis and rules of conduct of the doctor during the examination of the body at the place of its disclosure and the forensic medical examination of the body	-
G.W16.	knows the principles of forensic medical diagnostics and giving opinions in cases involving infanticide and reconstruction of the circumstances of a road accident	-
G.W17.	knows the rules of forensic and medical opinions regarding: the ability to participate in procedural activities of biological effect and health impairment	-
G.W18.	knows the concept of a medical error, the most common causes of medical errors and the rules of giving opinions in such cases	-
G.W19.	knows the rules of collecting material for toxicological and hemogenetic research	-
with regard to skills he/she can		
A.U01.	supports the optical microscope - also in the use of immersion	-

A.U02.	recognizes in images from an optical or electron microscope histological structures corresponding to organs, tissues, cells and cell structures, describes and interprets their structure and the relationship between structure and function	-
A.U03.	explains the anatomical basis of the physical examination	-
A.U04.	draws conclusions about the relationship between anatomical structures on the basis of vital diagnostic tests, in particular in the field of radiology (overview pictures, tests with the use of contrast agents, computed tomography and nuclear magnetic resonance)	-
A.U05.	uses both oral and written anatomical, histological and embryological names	-
B.U01.	uses the knowledge of the laws of physics to explain the influence of external factors, such as temperature, acceleration, pressure, electromagnetic field and ionizing radiation, on the body and its components	-
B.U02.	assesses the harmfulness of ionizing radiation dose and complies with the principles of radiological protection	-
B.U03.	calculates molar and percentage concentrations of compounds as well as concentrations of substances in iso-osmotic, single and multi-component solutions	-
B.U04.	calculates the solubility of inorganic compounds, determines the chemical basis of the solubility of organic compounds or its absence and practical importance for dietetics and therapy	-
B.U05.	determines the pH of the solution and the effect of pH changes on inorganic and organic compounds	-
B.U06.	predicts the direction of biochemical processes depending on the energy state of cells	-
B.U07.	describes changes in the functioning of the body in the event of homeostasis disorders, in particular defines its integrated response to physical exertion, exposure to high and low temperature, loss of blood or water, sudden upright standing, transition from sleep to wakefulness	-
B.U08.	performs simple functional tests assessing the human body as a stable regulation system (stress tests, exercise tests) interprets numerical data on basic physiological variables	-
B.U09.	uses basic laboratory techniques, such as: qualitative analysis, titration, colorimetry, pHmetry, chromatography, electrophoresis of proteins and nucleic acids	-
B.U10.	supports simple measuring instruments and evaluates the accuracy of measurements	-
B.U11.	uses databases, including the Internet, and searches for the necessary information using the available tools	-
B.U12.	selects an appropriate statistical test, conducts basic statistical analyzes and uses appropriate methods of presenting results, interprets the results of meta-analysis, and conducts an analysis of the probability of survival	-
B.U13.	explains the differences between prospective and retrospective, randomized and case-control studies, case reports and experimental studies and ranks them according to the reliability and quality of scientific evidence	-
B.U14.	plans and carries out a simple research, interprets its results and draws conclusions	-
C.U01.	analyzes genetic crosses and pedigrees of human traits and diseases, and assesses the risk of having a child with chromosomal abnormalities	-
C.U02.	identifies indications for prenatal tests	-
C.U03.	decides whether cytogenetic and molecular tests are needed	-
C.U04.	performs morphometric measurements, analyzes the morphogram and records the karyotypes of diseases	-

C.U05.	estimates the risk of manifestation of a given disease in the offspring based on family predispositions and the influence of environmental factors	-
C.U06.	assesses environmental threats and uses basic methods to detect the presence of harmful factors (biological and chemical) in the biosphere	-
C.U07.	recognizes the most common human parasites on the basis of their structure, life cycles and disease symptoms	-
C.U08.	uses the antigen-antibody reaction in current modifications and techniques for the diagnosis of infectious, allergic, autoimmune diseases, blood diseases and cancers	-
C.U09.	prepares the slide and recognizes pathogens under the microscope	-
C.U10.	interprets the results of microbiological tests	-
C.U11.	associates images of tissue and organ damage with clinical symptoms of the disease, history and laboratory test results	-
C.U12.	analyzes the reactive, defensive and adaptive phenomena as well as regulatory disturbances caused by the etiological factor	-
C.U13.	performs simple pharmacokinetic calculations	-
C.U14.	selects drugs in appropriate doses in order to correct pathological phenomena in the body and in individual organs	-
C.U15.	designs a scheme of rational chemotherapy of infections, empirical and targeted	-
C.U16.	correctly prepares records of all prescription forms of medicinal substances	-
C.U17.	uses pharmaceutical guides and databases on medicinal products	-
C.U18.	estimates the toxicological risk in specific age groups and in states of liver and kidney failure, and prevents drug poisoning	-
C.U19.	interprets the results of toxicological tests	-
D.U01.	takes into account the patient's subjective needs and expectations resulting from socio-cultural conditions in the process of therapeutic treatment	-
D.U02.	sees signs of anti-health and self-destructive behavior and responds to them appropriately	-
D.U03.	chooses a treatment that minimizes the social consequences for the patient	-
D.U04.	builds an atmosphere of trust throughout the treatment process	-
D.U05.	conducts a conversation with an adult patient, a child and a family using the technique of active listening and expressing empathy, and also talks with the patient about his or her life situation	-
D.U06.	informs the patient about the purpose, course and possible risk of the proposed diagnostic or therapeutic measures and obtains their informed consent	-
D.U07.	provides the patient and his or her family with information about an unfavorable prognosis	-
D.U08.	provides advice on compliance with therapeutic recommendations and a healthy lifestyle	-
D.U09.	identifies risk factors for the occurrence of violence, recognizes violence and reacts appropriately	-
D.U10.	uses basic psychological motivating and supportive interventions	-
D.U11.	communicates with teammates, providing constructive feedback and support	-
D.U12.	adheres to ethical models in professional activities	-
D.U14.	respects the patient's rights, including: the right to the protection of personal data, the right to privacy, the right to information about the state of health, the right to express informed consent to treatment or withdrawal from it, and the right to death in dignity	-

D.U15.	shows responsibility for improving his or her qualifications and transferring knowledge to others	-
D.U16.	recognises his or her own limitations, makes self-assessments of deficits and educational needs, plans his or her own educational activity	-
D.U17.	critically analyzes medical literature, including in English, and draws conclusions based on the available literature	-
E.U01.	conducts a medical interview with an adult patient	-
E.U02.	conducts a medical interview with the child and his or her family	-
E.U03.	carries out a full and targeted physical examination of an adult patient	-
E.U04.	conducts a physical examination of a child at any age	-
E.U05.	conducts a psychiatric examination	-
E.U06.	conducts an indicative hearing and visual field examination as well as an otoscopic examination	-
E.U07.	assesses the general condition, state of consciousness and awareness of the patient	-
E.U08.	assesses the condition of the newborn on the Apgar scale and assesses its maturity, tests neonatal reflexes	-
E.U09.	compares anthropometric and blood pressure measurements with data on percentile grids	-
E.U10.	assesses the advancement of sexual maturation	-
E.U11.	carries out health check-ups in children	-
E.U12.	carries out differential diagnosis of the most common diseases of adults and children	-
E.U13.	assesses and describes the patient's somatic and psychological state	-
E.U14.	recognises immediate life-threatening conditions	-
E.U15.	recognizes the condition after consuming alcohol, drugs and other stimulants	-
E.U16.	plans diagnostic, therapeutic and prophylactic procedures	-
E.U17.	conducts an analysis of possible side effects of individual drugs and their interactions	-
E.U18.	proposes the individualization of current therapeutic guidelines and other methods of treatment in the face of ineffectiveness or contraindications to standard therapy	-
E.U19.	recognizes the symptoms of drug dependence and proposes treatment	-
E.U20.	qualifies the patient for home and hospital treatment	-
E.U21.	defines the conditions in which the life expectancy, functional state or the patient's preferences limit the management according to the guidelines specified for a given disease	-
E.U22.	performs functional assessment of the disabled patient	-
E.U23.	proposes a rehabilitation program for the most common diseases	-
E.U24.	interprets laboratory tests and identifies the causes of deviations	-
E.U25.	uses nutritional treatment (including enteral and parenteral nutrition)	-
E.U26.	plans to deal with exposure to blood borne infection	-
E.U27.	qualifies the patient for vaccinations	-
E.U28.	collects material for tests used in laboratory diagnostics	-

E.U29.	performs basic medical procedures and treatments, including: a) body temperature measurement, pulse measurement, non-invasive blood pressure measurement, b) monitoring of vital signs using a cardiomonitor, pulse oximetry, c) spirometry test, oxygen treatment, assisted and substitute ventilation, d) insertion of an oropharyngeal tube, e) intravenous, intramuscular and subcutaneous injections, peripheral venous cannulation, peripheral venous blood collection, blood culture collection, arterial blood collection, arterialized capillary blood collection, f) nasal, throat and skin swab collection, cavity puncture g) urinary bladder catheterization in women and men, gastric sampling, gastric lavage, enema, h) standard resting electrocardiogram with interpretation, electrical cardioversion and cardiac defibrillation, i) simple strip tests and blood glucose measurement	-
E.U30.	assists in the following medical procedures and treatments: a) transfusion of blood and blood products, b) drainage of the pleural cavity, c) puncture of the pericardial sac, d) puncture of the peritoneal cavity, e) lumbar puncture, f) fine needle biopsy, g) epidermal tests, h) intradermal and scarification tests and interprets their results	-
E.U31.	interprets pharmaceutical characteristics of medicinal products and critically evaluates advertising materials related to medicines	-
E.U32.	plans specialist consultations	-
E.U33.	implements basic treatment procedures in acute poisonings	-
E.U34.	monitors the condition of patients poisoned by chemicals or medicines	-
E.U35.	assesses pressure ulcers and applies appropriate dressings	-
E.U36.	treats injuries appropriately (applies dressing or immobilisation, dresses and sutures wounds)	-
E.U37.	recognizes the patient's agony and declares his or her death	-
E.U38.	keeps the patient's medical records	-
F.U01.	assists in a typical surgical procedure, prepares the operating field and locally anesthetizes the operated area	-
F.U02.	uses basic surgical tools	-
F.U03.	adheres to the principles of asepsis and antisepsis	-
F.U04.	dresses a simple wound, applies and changes a sterile surgical dressing	-
F.U05.	inserts a peripheral venipuncture	-
F.U06.	examines the nipples, the lymph nodes, the thyroid gland and the abdominal cavity for acute abdomen and performs a finger examination through the anus	-
F.U07.	assesses the radiological findings for the most common types of fractures, particularly long bone fractures	-
F.U08.	performs temporary immobilisation of the limb, selects the type of immobilisation required for typical clinical situations and checks the blood supply to the limb after immobilisation dressing is applied	-
F.U09.	stops external bleeding	-
F.U10.	performs basic resuscitation using an automated external defibrillator and other emergency procedures and gives first aid	-
F.U11.	follows the current algorithm for advanced resuscitation	-
F.U12.	monitors the postoperative period based on vital signs	-
F.U13.	recognises subjective and physical symptoms indicative of abnormal pregnancy (abnormal bleeding, uterine contractions)	-

F.U14.	interprets the results of physical examination of the pregnant woman (blood pressure, maternal heart rate) and the results of laboratory tests indicative of pathologies in pregnancy	-
F.U15.	interprets cardiotocography (KTG) records	-
F.U16.	recognises the onset of labour and its abnormal duration	-
F.U17.	interprets the signs and symptoms of the puerperium	-
F.U18.	sets out recommendations, indications and contraindications regarding the use of contraceptive methods	-
F.U19.	conducts an ophthalmic screening test	-
F.U20.	recognizes ophthalmic conditions requiring immediate specialist help and provides initial, qualified assistance in cases of physical and chemical injuries of the eye	-
F.U21.	assesses the condition of the unconscious patient in accordance with the applicable international point scales	-
F.U22.	recognizes the symptoms of increasing intracranial pressure	-
F.U23.	assesses indications for suprapubic puncture and participates in its performance	-
F.U24.	assists in typical urological procedures (diagnostic and therapeutic endoscopy of the urinary tract, lithotripsy, prostate puncture)	-
F.U25.	carries out a basic ear, nose, throat and laryngeal examination	-
F.U26.	carries out an indicative hearing test	-
G.U01.	describes the demographic structure of the population and, on this basis, assesses the health problems of the population	-
G.U02.	collects information on the presence of risk factors for infectious and chronic diseases and plans preventive measures at various levels of prevention	-
G.U03.	explains to people using medical services their basic rights and the legal basis for providing these benefits	-
G.U04.	applies in practice legal regulations regarding the issuing of medical certificates for the needs of patients, their families and external institutions	-
G.U05.	when examining a child, recognizes behaviors and symptoms indicating the possibility of violence against the child	-
G.U06.	tries to avoid making a medical error in his/her actions	-
G.U07.	collects blood for toxicological tests in accordance with the rules and secures material for hemogenetic tests	-

with regard to social skills he/she is prepared for

K.01.	can establish and maintain a deep and respectful contact with the patient	-
K.02.	is guided by the well-being of the patient, putting it first	-
K.03.	complies with medical confidentiality and patient rights	-
K.04.	is aware of his/her own limitations and has the ability of continuous training	-