



COURSE UNIT DESCRIPTION

| Course unit title | Code |
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| Internship II/II and Final exam (2023-2024) | |

| Lecturer(s) | Department, Faculty |
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| <p>Coordinating Internship II: Assoc. Prof. PhD. Andrius Klimašauskas</p> <p>Other: Assist. PhD. Marius Kryžauskas; Assist. PhD. Gintautas Domža; Prof. PhD. Rimantė Čerkauskienė; Assist. PhD. Rytis Masiliūnas; Assist. PhD. Renata Juknevičienė.</p> <p>Coordinating Final exam: Assoc. Prof. PhD. Mindaugas Šilkūnas</p> <p>Other: Assoc. Prof. PhD. Audrius Dulskas, Assoc. Prof. PhD. Jūratė Dementavičienė, Prof. PhD. Vaidotas Urbonas, Assoc. Prof. PhD. Ieva Jovaišienė, Assoc. Prof. PhD. Sonata Varvuolytė, Assoc. Prof. PhD. Jūratė Pečeliūnienė.</p> | <p>Vilnius University, Faculty of Medicine, Institute of Clinical Medicine</p> |

| Study cycle | Level of the course | Type of the course unit |
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| Continuous studies (levels I and II) | – | Compulsory |

| Mode of delivery | Period of delivery | Language of instruction |
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| <p>Development of practical skills in the Departments of Internal Diseases, Surgery and Traumatology, Obstetrics and Gynaecology, Traumatology, Paediatrics, Emergency care and in the Ambulance Service vehicles.</p> | <p>Semester XII</p> | <p>English</p> |

| Requisites | | | |
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| <p>Prerequisites: the student must be settled for all subjects provided in the study plan.</p> | | <p>Corequisites (if any): students must have completed and defended a Master's thesis, completed an internship practice before Internship and Final exam.</p> | |
| Number of ECTS credits allocated | Student's total workload | Contact hours | Self-study hours |
| 28 | 850 | 692 | 158 |

| Discipline (module) objective: competencies to be developed during the study program |
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| <p>To acquire sufficient essential medical knowledge and skills and to be able to apply them in practice; to understand the structure, functions, and behavior of healthy and ill individuals, the relationships between a person's health status and their physical and social environment; to be well acquainted with scientific methods. To nurture a student's professionalism, ability, and readiness to work independently and in interdisciplinary teams; to communicate with people from different social and cultural backgrounds; to adhere to the requirements of medical ethics and deontology, healthcare, and social medicine organization; to critically assess the limits of one's competencies and be</p> |

able to be accountable for one's actions. To develop a holistic approach to the patient, to be able to timely and appropriately identify acute conditions and provide necessary medical assistance; to know the epidemiology of diseases, to diagnose diseases in individuals of various ages, identify possible causes and main risk factors, symptoms, acute and chronic complications; to evaluate the clinical condition of the patient and vital signs, to understand and apply basic methods of disease diagnosis, to prescribe targeted tests and, when necessary, additional examinations, to interpret the results of the conducted tests, to conduct differential diagnosis, to understand the principles of pharmacology, to be able to create a long-term patient care and monitoring plan, to understand the principles of treatment and recommend preventive measures. To be able to collect, systematize, analyze, interpret information, draw conclusions and recommendations, and plan actions based on them. To strive for professional development throughout one's entire career.

To enhance practical knowledge and skills acquired during the Medical Studies program. To acquire additional skills and abilities necessary for independent work according to the Medical Norm of Medical Doctor. To prepare for the professional activities of a medical doctor and for studies in residency.

| Learning outcomes of the course unit | Teaching and learning methods | Assessment method |
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| Generic competencies After successful completion of this module, the student will be able to: | | |
| act honestly, be emphatic, think critically and self-critically, be creative, take the initiative, act in line with ethical obligations; | Development of knowledge, clinical abilities and attitudes by working together with the internship tutor or an appointed physician or paramedic in the predefined personal healthcare establishments and ambulance service vehicles. An introduction to the cycle will take place at the beginning of each cycle: this will include discussion on expectations, objectives and tasks with the cycle tutors. Work with simulators, presentation of clinical cases | Cycle assessment with interns. |
| act independently while organising and planning one's own activities, assess the limits of one's own competencies and ask for help when needed; solve problems and take decisions, especially in new situations; the students will have communication and teamwork skills; | | |
| demonstrate respect, openness to and interest in the representatives of other cultures and subcultures; analyse and evaluate critically different cultural contexts; work in an international, diverse and multicultural environment and develop general knowledge in non-medical sciences; | | |
| share and encourage other team members to share all the information that is needed for effective teamwork; | | |
| take active care of one's own emotional, mental and physical health and well-being; | | |
| identify complex service and social issues; seek and find the most appropriate solutions; | | |
| demonstrate openness to different ideas and perspectives; be able to see new opportunities in change and strive to acquire the competencies needed for future changes; | | |
| continue studying, learning independently throughout life (lifelong learning), apply the knowledge and skills acquired in practice and teach others. | | |
| Specific competencies After successful completion of this module, the student will be able to: | | |

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| <p>use the information and IT effectively, maintain documentation and electronic databases properly;</p> | <p>Learning while working together with the internship tutor or an appointed physician or paramedic in the predefined personal healthcare establishments and ambulance service vehicles.</p> <p>Discussion with the cycle tutors and interns will take place at the beginning of each cycle.</p> | <p>Cycle assessment with the participation of interns will take place at the end of each cycle.</p> |
| <p>Communicate and cooperate professionally and effectively with patients or parents/guardians of a patient (infant or child):</p> <ul style="list-style-type: none"> • To find out and describe the reason for the patient’s visit; to explain to the patient or his/her parents/guardians how the reason of his/her visit has been acknowledged; • To understand the patient’s perspective and listen to the patient’s and his/her parents/guardians apprehension related to the patient’s illness; • To provide information related to the diagnosis and the course of further examinations and treatments and together with the patient or his/her parents/guardians discuss and develop a treatment and examination plan; • To encourage the patient or his/her parents/guardians to cooperate during the consultation and participate in the treatment; • At the end of the consultation to be certain that the patient or his/her representative or parents/guardians have understood all of the necessary information. | <p>Learning while working together with the internship tutor or an appointed physician or paramedic in the predefined hospitals, polyclinics, clinics and ambulance service vehicles. The tutors and establishments will be selected from a list developed by the coordinators. The priority for the tutor and establishment selection is the average pass-rate. Discussion with the cycle tutors and interns will take place at the beginning of each cycle. Cycle assessment with the participation of interns will take place at the end of each cycle.</p> | <p>Cycle assessment with the participation of interns shall take place at the end of each cycle.</p> |
| <p>To collect the proper information about the patient, his/her disease and carry out a general examination:</p> <ul style="list-style-type: none"> • To collect the patient’s medical, life, social and family history (anamnesis); • To carry out a physical examination on the patient; • To carry out a basic neurological examination (assessment of consciousness, pupils, speech, motor function and sensory function); | <p>Learning while working together with the internship tutor or an appointed physician or paramedic in the predefined hospitals, polyclinics, clinics and ambulance service vehicles. The</p> | <p>Cycle assessment with the participation of interns will take place at the end of each cycle.</p> |

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| <ul style="list-style-type: none"> • To assess the patient’s basic mental condition; • To formulate a preliminary diagnosis; • To assess the patient’s condition and provide first aid in case of breathing or circulation failure or loss of consciousness; • To suspect the person’s insobriety or intoxication by psychoactive substances; • To monitor the indicators of the individual’s vital functions and any changes; • To recognise signs of death and document them. | <p>tutors and establishments will be selected from a list developed by the coordinators. The priority for the tutor and establishment selection is the average pass-rate. Discussion with the cycle tutors and interns will take place at the beginning of each cycle. Cycle assessment with the participation of interns will take place at the end of each cycle.</p> | |
| <p>To prescribe examinations that are required for diagnostics of diseases, conditions and health disorders that are assigned to the competence of the medical doctor, to assess and construe the results obtained:</p> <ul style="list-style-type: none"> • general urinalysis; • general blood count; • biochemical blood tests and urinalysis; • blood coagulation tests; • ABO and Rh (D) blood group tests; • infection marker tests; • stool tests (occult blood in stool test, coprogram); • electrocardiography; • pulse-oximetry; • radiological examination, according to the localisation of the suspected condition; • echoscopy examination, according to the localisation of the suspected condition; • endoscopic examinations of gastrointestinal tract – oesophagogastroduodenoscopy and colonoscopy. | <p>Learning while working together with the internship tutor or an appointed physician or paramedic in the predefined personal healthcare establishments and ambulance service vehicles. The tutors and establishments will be selected from a list developed by the coordinators. The priority for tutor and establishment selection is the average pass-rate. Discussion with the cycle tutors and interns will take place at the beginning of each cycle. Cycle assessment with the participation of interns will take place at the end of each cycle.</p> | <p>Cycle assessment with the participation of interns will take place at the end of each cycle.</p> |
| <p>To carry out examinations that are required for diagnostics of diseases, conditions and health disorders that are assigned to the competence of a medical doctor:</p> <ul style="list-style-type: none"> • recording of 3 and 12 lead ECG and additional leads and to construe the ECG results • to measure the capillary blood glucose levels; | <p>Learning while working together with the internship tutor or a physician or paramedic appointed by the tutor in the predefined personal</p> | <p>Cycle assessment with the participation of interns will take place at the end of each cycle.</p> |

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| <ul style="list-style-type: none"> • to carry out the puncture and catheterisation of the peripheral veins; • to take a venous blood sample for blood culture; • to carry out subcutaneous and intramuscular injections; • to administer intravenous therapy and use items designed for an infusion; • to carry out a blood grouping test and make a blood transfusion; • to administer medicines (intramuscularly intravenously, by intranasal route, using a vaporizer, orally, subcutaneously, rectally, applying adhesive form, via automatic injection pump, autoinjector); • to control pain by non-pharmacological and pharmacological means; • to take blood, wound, puss, ear, upper respiratory tract, genitalia, urine and stool samples for microbiological examination in the standard media; • to carry out pulse-oximetry; • to purge the gastrointestinal tract; • to insert a nasogastric probe; • to perform an eye washing; • to remove a non-impacted foreign body from the eyes, ears and nose; • to remove a stuck tick; • to perform catheterisation of the urinary bladder; • to assess diuresis; • to put bandages on different body sites; • to prepare an uncomplicated wound for surgical treatment and carry out the primary surgical wound management procedure; • to make an incision of a skin/subcutaneous abscess; • to apply means of physical constraint for patients with mental or behavioural disorders and carry out monitoring of the use of the means of physical restraint in compliance with the requirements of legal acts; • to use a neck splint; • to immobilise spinal and pelvic fractures; • to use a splint for the immobilisation of a broken and/or dislocated/luxated limb; • to carry out a temporary fitting for work expertise following the rules on the expertise for temporary fitting for work, and to issue a medical certificate of non-fitting for work and/or a medical certificate for absence from work. | <p>healthcare establishments and in ambulance service vehicles. The tutors and establishments will be selected from a list developed by the coordinators. The priority for tutor and establishment selection is the average pass-rate. Discussion with the cycle tutors and interns will take place at the beginning of each cycle. Cycle assessment with the participation of interns will take place at the end of each cycle.</p> | |
| <p>To suspect, recognise and provide with urgent medical care to patients of all age groups in case of diseases, traumas and accidents involving the effect of hazardous environmental factors and natural birth giving, to initiate a treatment for such conditions and diseases, and, if necessary, to involve other healthcare professionals and/or transport the patient and/or refer the patient for a consultation:</p> | <p>Learning while working together with the internship tutor or a physician or paramedic appointed by the tutor in the predefined personal</p> | <p>Cycle assessment with the participation of interns will take place at the end of each cycle.</p> |

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| <ul style="list-style-type: none"> • in case of comma; • in case of shock; • in case of major bleeding of traumatic and non-traumatic origin; • in case of hyperthermia or hypothermia; • in case of dehydration; • in case of seizure syndrome; • in case of suffocation or (presence or suspicion) of a foreign body in the tissues or natural body orifices and cavities; • in case of acute allergic reactions or anaphylactic shock; • after trauma; • after trauma, in the presence of inherited or acquired coagulation disorders; • in case of cranial trauma and temporary unconsciousness; • in case of pain syndrome; • in case of acute burns or frostbites; • in case of paralysis; • in case of speech disorders; • in case of severe headache; • in case of heart attack; • in case of acute cardiovascular diseases; • in case syncope; • if cyanosis is present; • in case of limb oedema; • in case of acute abdominal pain; • in case of icterus (jaundice); • in case of nausea and vomiting; • in case of vomiting up blood (haematemesis); • in case of melena and fresh blood in the stool; • in case of diarrhoea; • in case of constipation; • in case of ascites; • in the presence of hyperglycaemia and ketoacidosis in diabetes mellitus patients; • in case of hypoglycaemia; • in case joint swelling; • in case of itching; • in case skin and mucous membrane rash; • in case of vision disorders; • in case of hearing disorders; • in case of swallowing disorders; • in case of hiccups; • in case of acute kidney and urological diseases; • in case of dysuria; • in case of haematuria; • in case of urine retention; • in case of acute obstetric and gynaecological conditions; • while giving birth; • in case of a restless baby; • in case of a crying baby/infant; • in case of eating disorders; • in case of acute mental and behavioural disorders; • in case of suicidal or violent behaviour; • in case of poisoning (poisoning suspicion) with hazardous or particularly hazardous substances, overdose of psychoactive substances or medicines, with indications for antidote administration; | <p>healthcare establishments and in the ambulance service vehicles. The tutors and establishments will be selected from a list developed by the coordinators. The priority for tutor and establishment selection is the average pass-rate. Discussion with the cycle tutors and interns will take place at the beginning of each cycle. Cycle assessment with the participation of interns will take place at the end of each cycle.</p> | |
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| <ul style="list-style-type: none"> • after a bite by a poison-producing animal; • after a bite or slaving by mad or possibly mad animals; • after a tick leech; • on suspicion of an especially dangerous infection, where the patient requires isolation; • in case of complications caused by catheters, probes or other devices; • in case of artificial stoma failure (requiring replacement or unplugging). | | |
| To be able to apply scientific principles (of evidence-based medicine), methods and knowledge in medical practice | | |
| To encourage a healthy lifestyle, to resolve public health issues and work effectively in the healthcare system applying knowledge in disease prevention | | |

| Topics | Contact work hours | | | | | | | Time and tasks of self-study | |
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| | Lectures | Consultations | Seminars | Practice | Laboratory work | Practical training | Total contact hours | Self-study | Tasks |
| Course: Internship II | | | | | | | | | |
| Practical exercises in simulation classes | | | 5 | 5 | | | 10 | 14 | In simulation classes, independently perform procedures necessary to diagnose and treat diseases, conditions, and health disorders attributed to the competence of a medical doctor |
| Obstetrics and Gynaecology II | Cycle according to a prearranged schedule | | | | | | | | To prepare for a seminar and obstetrics and gynaecology practical workshops using the materials received during the Introduction to the internship |
| Surgery and traumatology II | Cycle according to a prearranged schedule | | | | | | | | To prepare for a seminar and surgery and traumatology practical workshops using the materials received during the Introduction to the internship |
| Paediatrics II | Cycle according to a prearranged schedule | | | | | | | | To prepare for a seminar and |

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| | | | | | | | | paediatrics practical workshops using the materials received during the Introduction to the internship | |
| Internal diseases II | | Cycle according to a prearranged schedule | | | | | | | To prepare for a seminar and internal diseases practical workshops using the materials received during the Introduction to the internship |
| Emergency care II | Emergency care at a hospital II | Cycle according to a prearranged schedule | | | | | | | To prepare for a seminar and emergency care practical workshops using the materials received during the Introduction to the internship |
| | Ambulance service II | Cycle according to a prearranged schedule | | | | | | | To prepare for a seminar and ambulance service practical workshops using the materials received during the Introduction to the internship |
| Optional cycle | | Cycle according to a prearranged schedule | | | | | | | To prepare for a seminar and practical workshops of the optional cycle using the materials received during the Introduction to the internship |
| Cycles according to a prearranged schedule | | | 5 | | | 672 | 677 | 14 | |
| In total during the course | | | 10 | 5 | | 672 | 687 | 28 | |

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| <p>Acute and chronic cardiovascular failure (sudden death, cardiogenic shock, fainting, collapse, pulmonary oedema), atherosclerosis, chest pain, coronary artery disease (angina pectoris, acute coronary syndromes, myocardial infarction, post infarction cardiosclerosis), aortic diseases, rhythm and conduction disorders (tachyarrhythmias, paroxysmal rhythm of the heart, bradyarrhythmia, Morgagni-Adams-Stokes attack, etc.), arterial hypertension (primary and secondary, hypertensive crises), dyslipidaemia, cardiomyopathies, myocarditis, pericardial disease, acute pulmonary embolism, pulmonary hypertension, chronic pulmonary heart, valvular heart disease, infective endocarditis, congenital heart disease, congenital heart disease in new-borns and infants; peripheral and visceral artery occlusive disease, limb artery embolism; diabetic foot, congenital vascular malformations, chronic venous disease, deep vein thrombosis, lymphatic system pathology, cardiac arrhythmias and other conditions requiring long-term antithrombotic treatment: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long-term observation, indications for hospitalization, oxygen therapy, surgical treatment and heart transplantation, principles of surgical treatment, methods of preventing cardiovascular diseases.</p> <p>Principles of first aid (cardiopulmonary resuscitation, artificial respiration, defibrillation and medications) in cases of ventricular fibrillation, cardiac asystole and electromechanical cardiac dissociation.</p> | | | | | | | | |
| <p>RESPIRATORY SYSTEM AND DISEASES</p> <p>Respiratory system anatomy, physiology, pathology and clinical examination. Principles and assessment of lung functions testing, non-apparatus oxygen therapy, pleural puncture (thoracocentesis), sputum examination, radiological methods of lungs examination. Evaluation and interpretation of other laboratory and instrumental examination of</p> | | | | | | | | |

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| <p>respiratory diseases. Clinical pulmonary syndromes, differential diagnosis of cough, bronchial obstruction and dyspnoea, smoking injury and treatment methods. Upper respiratory tract infection, acute and chronic bronchitis, chronic obstructive lung disease, acute pneumonia, bronchial asthma (bronchial asthma attack, asthmatic condition), dry and exudative pleurisy, bronchiectasis, interstitial lung diseases, pulmonary embolism, lung cancer, tuberculosis, bleeding from lungs, haemorrhage, sleep apnoea syndrome, acute respiratory distress syndrome, pulmonary hypertension, pneumoconiosis, fungal and parasitic lung disease, drug-induced lung injury, pulmonary damage in systemic collagen vascular diseases, heart, digestive tract and haematological disorders, non-tuberculous mycobacterial lung disease, acute and chronic respiratory failure, chest traumas, pneumothorax, nonspecific pleuropulmonary suppurations, tumours of respiratory system and pleura, oesophageal diseases, iatrogenic injuries and blunt trauma of the airway, mediastinal diseases and tumours, diaphragm injuries and diseases: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long-term observation, indications for hospitalization, oxygen therapy, surgical treatment, principles of surgical treatment methods of preventing respiratory diseases. Foreign bodies in the trachea, indications and complications of tracheostomy.</p> | | | | | | | | | |
| <p>DIGESTIVE SYSTEM AND DISEASES Digestive system anatomy, physiology, pathology and clinical examination of abdomen. Principles and evaluation of gastric lavage and gastric and duodenal contents, faecal occult blood test, ascites puncture, digital rectal and speculum examination. Evaluation and interpretation of laboratory and instrumental examination of digestive system diseases. Differential diagnosis of abdominal pain.</p> | | | | | | | | | |

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| <p>Benign diseases of the oesophagus, stomach and duodenum (reflux oesophagitis, acute and chronic gastritis, ulcer) and tumours, eating disorders, gallbladder and ductal diseases (gallstones, cholecystitis, syndrome), pancreas, liver disease, acute and chronic liver failure; small bowel diseases, appendicitis, colonic diseases, intestinal obstruction, irritable bowel syndrome, constipation, rectal and anal canal diseases, abdominal hernias, peritonitis, abdominal trauma, gastrointestinal bleeding: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, principles of treatment, long-term follow-up, indications for hospitalization and surgery, principles of surgical treatment, metabolic and endocrine surgery and abdominal organ transplantation, principles of dietary treatment of patients with gastrointestinal diseases, and methods of preventing digestive diseases.</p> | | | | | | | | | |
| <p>CONNECTIVE TISSUE AND MUSCULOSKELETAL SYSTEM AND DISEASES Anatomy, physiology, pathology and clinical examination of connective tissue and musculoskeletal system. Geriatric examination of the elderly. Evaluation and interpretation of joint function, radiographs of joints and bones, other laboratory and instrumental examination of connective tissue and musculoskeletal disorders. Rheumatoid arthritis, undifferentiated arthritis, dermatomyositis, myopathies, rheumatoid arthritis, Sjogren's syndrome, rheumatic fever, arthritis associated with infections, microcrystalline arthritis (gout, chondrocalcinosis), systemic lupus erythematosus, antiphospholipid syndrome, vasculitis, systemic sclerosis, ankylosing spondylitis, spondylarthritis, degenerative joint and spinal disorders (coxarthrosis, gonarthrosis, osteochondrosis), fibromyalgia, osteoporosis,</p> | | | | | | | | | |

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| <p>periarthropathies of hand, elbow, shoulder, hip, knee and foot, (tendovaginitis, bursitis, ligamentitis), gait and balance disorders, wounds, bone fractures, dislocations, joint and spinal injuries, polytrauma, tunnel syndromes, nerve trauma and foot nerve pathology, bone and cartilage tumours: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, indications for hospitalization and surgery, principles of surgery and methods of preventing connective tissue and musculoskeletal diseases. Principles of bleeding control, application of soft and plaster bandages, immobilization of hand and foot bone fractures, treatment of uncomplicated wounds, indications for endoprosthesis and skin plastics and their application.</p> | | | | | | | | | |
| <p>GENITOURINARY SYSTEM AND DISEASES Anatomy, physiology, pathology and clinical examination of the urogenital system and renal function. Evaluation and interpretation of laboratory and instrumental examination of diseases of the urogenital system. Principles of bladder catheterization and kidney biopsy. Acute renal injury, glomerulopathies, nephropathies, other renal diseases, urogenital tract infection (cystitis, acute and chronic pyelonephritis, urosepsis), urinary stone disease, renal colic, obstructive uropathy, dysuria, female and male urinary incontinence, acute and chronic renal failure, chronic kidney disease, prostate, kidney, bladder and testicular cancer, urological trauma: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long-term monitoring, indications hospitalization, renal replacement therapy (haemodialysis, peritoneal dialysis), surgical treatment, kidney transplantation, and application principles, methods of preventing urogenital diseases.</p> | | | | | | | | | |
| <p>ENDOCRINE SYSTEM AND DISEASES</p> | | | | | | | | | |

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| <p>Anatomy, physiology, pathology and clinical examination of the endocrine system. Evaluation and interpretation of laboratory and instrumental examination of endocrine disorders. Hormone secretion disorders of anterior pituitary, thyroid, parathyroid and adrenal glands, thyrotoxic crisis, myxedemic coma, adrenal hyperplasia, acute and chronic adrenal insufficiency; glucose metabolism, diabetes mellitus, diabetic coma, hypoglycaemia, and chronic diabetic complications, gonadal hormones and their role in reproduction, sex chromosome diseases (Aneuploids – Turner and Klinefelter syndromes): epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long- term follow-up, indications for hospitalization and surgery, methods of preventing endocrine diseases.</p> | | | | | | | | | |
| <p>BLOOD AND HAEMOPOIETIC SYSTEM AND DISEASES Anatomy, physiology, pathology and clinical examination of the blood and hematopoietic system. Evaluation and interpretation of laboratory and instrumental examination blood and haematopoietic diseases. Iron, vitamin B12 and folic acid deficiency anaemia, lymphatic system pathology, lymphoproliferative diseases, acute leukaemia, chronic leukemia, paraproteinemia, thrombosis and bleeding syndrome, haemophilia, disseminated intravascular coagulation: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnostics, emergency medical care, treatment principles, long- term follow-up, indications for hospitalization, surgery and bone marrow transplantation, principles of treatment and clinical transfusion, methods of preventing blood and hematopoietic diseases.</p> | | | | | | | | | |
| <p>SKIN AND ITS ADDITIVES, DERMATOVENEROLOGICAL AND ALLERGIC DISEASES Anatomy, physiology, pathology and clinical examination of the skin, its additives and the immune system. Evaluation and interpretation of</p> | | | | | | | | | |

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| <p>microbiological, laboratory and instrumental examination of dermatovenerological and allergic diseases. Bacterial and parasitic skin diseases, viral skin and mucous membrane diseases, fungal infections, psoriasis, dermatitis, photodermatoses, acne and acne related diseases, rosacea, sexually transmitted infections, AIDS and skin diseases, autoimmune connective tissue diseases, bullous skin diseases, precancerous skin diseases and benign skin tumours, malignant skin tumours, allergic rhinitis and allergic conjunctivitis, allergic bronchial asthma, acute allergic reactions (Queens oedema, anaphylactic shock), urticaria and angioedema, allergic dermatitis, food allergy, drug hypersensitivity, anaphylaxis, toxic epidermal necrosis, immunodeficiency: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long-term follow-up, indications for hospitalization and methods of preventing of dermatovenerological and allergic diseases.</p> | | | | | | | | | |
| <p>NERVOUS SYSTEM AND DISEASES Anatomy, physiology, pathology and clinical examination of the nervous system. Evaluation and interpretation of laboratory, functional and instrumental examination of the nervous system diseases. Differential diagnosis of unconsciousness, seizures, lumbar and abdominal pain. Disorders of sensation and somatic sensation, central and peripheral paralysis, pyramidal, extrapyramidal and coordination disorders, seizures, cranial nerves disorders, cerebral cortical dysfunction, disorders of autonomic nervous system, peripheral nervous system disorders, cerebrovascular diseases, infectious diseases of nervous system, headache, dementia and other cognitive disorders, epilepsy, disturbances of consciousness, demyelinating disorders of the central nervous system, neuromuscular disorders, diseases of motoneuron, craniocerebral trauma, brain tumours,</p> | | | | | | | | | |

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| <p>cerebrovascular abnormalities, pathology of carotid and vertebral arteries, spinal injury, degenerative disorders of spine, oncological disorders of spine and spinal cord, disturbances of circulation of cerebrospinal fluid, neurosurgical disorders in children: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long-term follow-up, indications for hospitalization surgical treatment and functional neurosurgery, principles of surgical treatment, methods of preventing of nervous system diseases.</p> | | | | | | | | | |
| <p>PRINCIPLES OF COMMUNICABLE DISEASE AND EPIDEMIOLOGY Indicators and research in epidemiology, epidemiology, prevention and management principles of communicable infectious diseases, basics of immunoprophylaxis, principles of organization of anti-epidemic measures in case of suspicion of extremely dangerous infection. Interpretation and evaluation of microbiological, laboratory and instrumental examination of communicable diseases. Degrees of dehydration. Acute infectious diseases (typhoid, paratyphoids, intestinal salmonellosis and other food toxic infections, botulism), viral diarrhoea, yersiniosis (intestinal yersiniosis and pseudotuberculosis), protozoal diseases, shigellosis, campylobacteriosis, helminthiasis, viral hepatitis, viral respiratory infections, diphtheria, streptococcal tonsillitis, mycoplasma infection, chlamydial pneumonia, pneumococcal infection, legionellosis, rickettsiosis, infection caused by Herpes family viruses, bacterial and viral meningitis, meningococcal meningitis, extremely dangerous infections (cholera, plague, yellow butterfly), sepsis, infectious-toxic shock, tick-borne diseases, traveller diseases, zoonoses, HIV infection, AIDS and opportunistic infections, human papillomavirus infection, polio, tetanus, rabies, rose, cellulitis, skin infections following animal bites: epidemiology, major risk</p> | | | | | | | | | |

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| <p>factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, treatment principles, long-term follow-up, indications for hospitalization and methods of preventing communicable infectious diseases.</p> | | | | | | | | | |
| <p>MENTAL AND BEHAVIURAL DISORDERS General psychopathology, schizophrenia, eating disorders, inorganic sleep disorders, depression, bipolar affective disorder, organic and symptomatic psychiatric disorders, personality and behavioural disorders, somatoform and dissociative disorders, anxiety and stress disorders, psychoactive substance abuse, autism spectrum disorders, other developmental disorders, behavioural disorders in children and adolescents, hyperkinetic disorders, emotional disturbances in children and adolescents, tics, enuresis: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, treatment principles, long-term follow-up, indications for hospitalization and methods of mental and behavioural disorders. Violence against children, peculiarities of adult age-related mental disorders in childhood and adolescence, suicidal behaviour, basics of social psychiatry, biological methods of treatment, directions and basics of psychotherapy, principles of integrated child and family care.</p> | | | | | | | | | |
| <p>BASICS OF CLINICAL GENETICS Genetic counselling. Bioethical and legal issues in clinical genetics. Genealogy analysis. Rare diseases. Multiple Diseases. Elements of morphology: phenotypic evaluation of head, face, ears, eyes, nose, mouth, extremities. Databases used for differential diagnosis in clinical genetics. Chromosomal diseases (sex chromosome aneuploids, autosomal trisomies, microdeletion syndromes). Clinical syndromology. Syndromes associated with craniofacial contour, affected faces, proportionally short stature, bone and connective tissue pathology, overgrowth and postnatal</p> | | | | | | | | | |

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| <p>onset obesity, premature aging, skin and mucosa. Monogenic diseases mainly affecting the central nervous system, respiratory system, cardiovascular system, hematopoietic system, urogenital, digestive and endocrine system. Inherited peripheral nervous system and muscle disorders. Hereditary metabolic diseases (phenylketonuria, tyrosinemia, type I, urea synthesis disorders, galactosemia). Disorders of energy metabolism. Mitochondriopathies. Disorders of fatty acid oxidation. Mucopolysaccharidoses. Prenatal diagnosis and genetic counselling. Preimplantation genetic diagnostics.</p> | | | | | | | | | |
| <p>CHILDREN DISEASES Stages and characteristics of the physical and mental development of healthy child, maturity and physiological development of the newborn; Paediatric anatomical and physiological peculiarities of different organ system, clinical examination of different age child. Care of a healthy and sick child, natural, formula, mixed and additional infant feeding, feeding of elder children, dentition and dental change; rickets, spasmophilia. Evaluation and interpretation of laboratory and instrumental examination in children, peculiarities of children's electrocardiogram. Immunoprophylaxis in children. Initial resuscitation of new-born and child. Transient neonatal conditions, common neonatal disorders: haemolytic, haemorrhagic, common embryopathy and fetopathy, prenatal infection and neonatal sepsis, perinatal hypoxia. Children congenital and acquired heart diseases, paediatric inflammatory heart diseases in children: myocarditis, infectious endocarditis, pericarditis, cardiomyopathies, acute heart failure, inherited arrhythmias, paroxysmal tachycardia. The most common respiratory system diseases in children: acute upper respiratory tract infections, acute bronchitis, pneumonia, upper and lower airway obstruction, acute respiratory failure, bronchial asthma, respiratory system abnormalities in neonates and children, foreign bodies of respiratory tract.</p> | | | | | | | | | |

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| <p>The most common diseases and functional disorders of the gastrointestinal tract in children: diseases of children oesophagus and stomach, malabsorption syndrome and celiac disease, functional disorders of digestive tract and constipation. Common urinary tract disorders and urinary disorders in children: urinary tract infection, nephritic and nephrotic syndrome, acute kidney failure. Vasculitis in children, juvenile idiopathic arthritis and systemic connective tissue disease. Hemoblastoses and solid tumours, anaemias, thrombocytopenia, disorders of haemostasis, histiocytes and macrophages. Paediatric diabetes mellitus, diabetic, ketoacidosis and hypoglycaemia, paediatric obesity and type 2 diabetes, adrenal disease, acute adrenal disorders, congenital adrenogenital syndrome, disorders of growth and puberty. Children's seizures, epilepsy, non-epileptic seizures, children developmental disorders, cerebral palsy, congenital neuromuscular diseases. The most common allergic diseases in children: skin allergies, digestive allergies, allergic rhinitis and conjunctivitis, feeding of allergic child, toxic epidermal necrosis. Bacterial gastrointestinal infections (salmonellosis, shigellosis, escherichiosis, campylobacteriosis, yersiniosis, pseudotuberculosis), viral gastrointestinal infections. Viral infections: measles, rubella, chickenpox, shingles, Herpes simplex infection, sudden exanthema, infectious mononucleosis, mumps, parvovirus infection. Bacterial infections: scarlet fever, pertussis, parapertussis, Haemophilus influenzae infection, meningococcal infection, streptococcal infection, diphtheria in children; helminthiasis. Urgent pediatric surgical diseases of abdominal organs: acute appendicitis, acquired and congenital bowel obstruction, trauma of abdominal and retroperitoneal organs, gastrointestinal foreign bodies of gastrointestinal tract. Benign tumours (hemangiomas, lymphangiomas, teratomas), and malignant tumours (neuroblastoma, hepatoblastoma, teratoblastoma).</p> | | | | | | | | | |
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| <p>Purulent diseases of children: acute hematogenous osteomyelitis, dermal and subdermal infections, destructive pneumonia and its complications. Congenital malformations of the urinary and urogenital systems, urinary tract stone disease, nephroblastoma. The most common paediatric orthopaedic abnormalities, paediatric traumas and accidents: bone fractures, neurotrauma, burns, chilblains. Epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical treatment, principles of treatment, long-term follow-up, indications for hospitalization and surgery, principles of surgical treatment ways to prevent childhood and childhood illness Peculiarities of children's emergency conditions: acute unconsciousness, respiratory and circulatory failure, shock of various origins, critical conditions, anaphylaxis, fever and hyperthermia; peculiarities of specialized child resuscitation. Peculiarities of child homeostasis, and disorders, dehydration; principles of paediatric infusion therapy. Children's accidents: acute household poisoning by medicines and chemicals, choke, shocked infant's syndrome, drowning, heat injury, severe trauma.</p> | | | | | | | | | |
| <p>BASICS OF GENERAL SURGERY Principles of asepsis and antisepsis, disinfection and sterilisation, sutures, drains, probes, catheters, instruments, surgical infection, intoxication, abscess, cellulitis (phlegmon), necrotising fasciitis, closed body cavity infections, sepsis, septic shock, trauma and polytrauma, wounds, thermal injuries (burns, frostbite), external bleeding. Bleeding and principles of haemostasis in surgery, treatment of uncomplicated wounds, surgical wound dressing, post-operative patient care.</p> | | | | | | | | | |
| <p>THE EYE DISEASES Eye anatomy, physiology, pathology and clinical examination. Evaluation and interpretation of laboratory and instrumental examination. Strabismus, eyelid and conjunctival diseases, lacrimal disorders, cornea and uveal tract diseases, lens diseases, glaucoma,</p> | | | | | | | | | |

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| <p>diseases of retina and optic nerve, eye traumas: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, principles of treatment, indications for hospitalization and surgery, methods of preventing eye diseases.</p> | | | | | | | | | |
| <p>EARS, NOSE AND THROAT DISEASES Ear, nose, throat anatomy, physiology, pathology and clinical examination. Evaluation and interpretation of laboratory and instrumental examination. Otitis, mastoiditis, tympanofibrosis, labyrinthitis, dizziness, intracranial otogenic complications, Meniere's disease, sensorineural hearing loss, otosclerosis, nose obstruction, rhinitis, nasal furuncle, haematoma and abscess of the nasal septum, deviated septum of the nose, epistaxis, sinusitis, intraorbital and intracranial complications, tumours of the nose, pharyngitis, paratonsillar, parapharyngeal and retropharyngeal abscesses, tonsillitis, laryngitis, stenosing laryngitis, voice diseases, benign and malignant larynx tumours: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, emergency medical care, principles of treatment, indications for hearing aids, hospitalization and surgical treatment, methods of preventing ear, nose and throat diseases.</p> | | | | | | | | | |
| <p>MALIGNANT TUMOURS Epidemiology of malignant tumours, major risk factors, aetiology, symptoms, progression, acute conditions, complications, lymphadenopathies, paraneoplastic syndromes, diagnostic options, evaluation and interpretation of laboratory and instrumental examination, differential diagnosis, principles of treatment and palliative care, indications for radiation, chemotherapy, surgical and other specific treatments, bone marrow transplantation, and prevention of oncological diseases.</p> | | | | | | | | | |

**CRITICAL CONDITIONS,
POISONING AND BASICS OF
ANAESTHESIA**

Basic and advanced life support (external cardiac massage and artificial respiration, oral and nasopharyngeal cleansing, insertion of the oropharyngeal and nasopharyngeal tube, performing artificial respiration by hand-operated apparatus, taking an electrocardiogram, defibrillation, cardioversion, electrical heart pacing, related medication and post-heart-arrest syndrome, critical care pharmacotherapy, venous puncture and infusion therapy), resuscitation in emergencies, peculiarities in ventricular fibrillation, cardiac asystole and electromechanical cardiac dissociation, resuscitation in the hospital, main principles of mechanical ventilation of lungs, renal replacement, infusion and transfusion therapy neuroprotection, treatment of patients after resuscitation.

Sudden death, acute lung injury, acute respiratory distress syndrome, acute respiratory failure, pulmonary oedema, shock (cardiogenic, bacterial, anaphylactic, hypovolemic, haemorrhagic and traumatic), sepsis and organ dysfunction, gastrointestinal failure, intraabdominal hypertension, acute renal failure, nosocomial infection, coma; seizures; stroke, severe head trauma, polytrauma, choking, drowning, acute and chronic pain, hyperthermia, dehydration, disseminating intravascular coagulation, injuries, accidents: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, principles of treatment, indications for treatment in intensive care unit, ethical questions in intensive care, end-of-life decisions.

Poisoning by medicines, psychoactive (narcotic) substances, barbiturates, organic substances, poisonous gases, carbon monoxide, methaemoglobin creating substances, arsenic and metal compounds, biological poisons, insecticides, pesticides, methyl and ethyl alcohol, acids and alkalis, food and first aid when poisoning (non-specific detoxification measures, elimination of resorbed poisons, promotion of metabolism in the body,

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| <p>CRITICAL CONDITIONS, POISONING AND BASICS OF ANAESTHESIA</p> <p>Basic and advanced life support (external cardiac massage and artificial respiration, oral and nasopharyngeal cleansing, insertion of the oropharyngeal and nasopharyngeal tube, performing artificial respiration by hand-operated apparatus, taking an electrocardiogram, defibrillation, cardioversion, electrical heart pacing, related medication and post-heart-arrest syndrome, critical care pharmacotherapy, venous puncture and infusion therapy), resuscitation in emergencies, peculiarities in ventricular fibrillation, cardiac asystole and electromechanical cardiac dissociation, resuscitation in the hospital, main principles of mechanical ventilation of lungs, renal replacement, infusion and transfusion therapy neuroprotection, treatment of patients after resuscitation.</p> <p>Sudden death, acute lung injury, acute respiratory distress syndrome, acute respiratory failure, pulmonary oedema, shock (cardiogenic, bacterial, anaphylactic, hypovolemic, haemorrhagic and traumatic), sepsis and organ dysfunction, gastrointestinal failure, intraabdominal hypertension, acute renal failure, nosocomial infection, coma; seizures; stroke, severe head trauma, polytrauma, choking, drowning, acute and chronic pain, hyperthermia, dehydration, disseminating intravascular coagulation, injuries, accidents: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, principles of treatment, indications for treatment in intensive care unit, ethical questions in intensive care, end-of-life decisions.</p> <p>Poisoning by medicines, psychoactive (narcotic) substances, barbiturates, organic substances, poisonous gases, carbon monoxide, methaemoglobin creating substances, arsenic and metal compounds, biological poisons, insecticides, pesticides, methyl and ethyl alcohol, acids and alkalis, food and first aid when poisoning (non-specific detoxification measures, elimination of resorbed poisons, promotion of metabolism in the body,</p> | | | | | | | | | |
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| <p>antidote therapy), forms of prevention measures and information management.</p> <p>Types, principles and complications of anaesthesia, principles of infusion and transfusion therapy, pharmacotherapy of critical illness, basics of homeostasis correction, electrolyte disbalance, metabolic control, acid-base balance disorders, pain physiology and pharmacology; Enteral and parenteral nutrition: evaluating the deterioration of and individual needs for nutrition, setting the nutrition-plan, and its specifics in different critical states of patients.</p> | | | | | | | | | |
| <p>PHYSIOLOGY AND PATHOLOGY OF PREGNANCY</p> <p>Physiology of pregnancy, multiple pregnancy, adolescent pregnancy, development of foetus, physiology of labour, antenatal assessment of foetal wellbeing and foetal wellbeing assessment in labour, evaluation of new-born health, physiology of puerperium, peculiarities of breastfeeding. Chronic illnesses and medication use during pregnancy planning, pregnancy and feeding. Prenatal diagnosis of hereditary diseases and congenital defects, evaluation and interpretation of laboratory and instrumental examination of the pregnant women and foetus. Antenatal care in outpatient clinic, peculiarities of care of labour in term, preterm and postterm labour, care and treatment of healthy and preterm new-born, transitive new-born conditions. Principles of normal labour mechanisms, first neonatal toilet, maternal care during the placental period, labour induction and stimulation, obstetrical operations.</p> <p>Hypertension disorders in pregnancy, preeclampsia, eclampsia, HELLP syndrome, haemorrhage in pregnancy, labour and postpartum, perinatal infection, multiple pregnancy: complications in pregnancy and labour, labour distortion, malpresentations and malpositions of foetus, Rh isoimmunization: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, principles of treatment, indications for</p> | | | | | | | | | |

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| hospitalization, indications for surgery. | | | | | | | | | |
| <p>GYNECOLOGICAL DISEASES Age related anatomy, physiology, pathology, and clinical examination of the women reproductive system. Peculiarities of normal and pathological puberty, perimenopausal and postmenopausal period. Family planning and infertility issues. Evaluation and interpretation of laboratory and instrumental examinations important to diagnose gynaecological disease. Gynaecologic problems in girls, menstrual cycle disorders, benign and malignant lesions of external genitalia, benign and malignant cervical lesions, polycystic ovary syndrome, hyperandrogenaemia, ovarian benign and malignant tumours, endometrium hyperplasia, polyps and cancer, uterine leiomyomas, endometriosis, chronic pelvic pain, gynaecological diseases and disorders of urinating, urgent situations in gynaecology: epidemiology, major risk factors, aetiology, symptoms, complications, diagnostic options, differential diagnosis, emergency medical care, first aid in uterine bleeding, principles of treatment, indications for hospitalization and surgical treatment, principles of surgical treatment and methods of preventing gynaecological diseases.</p> | | | | | | | | | |
| <p>BASICS OF NURSING Nursing classification, types, infection control in health care institutions and asepsis, work safety and hygiene, hands and medical devices' hygiene, safe environment. Patient's personal hygiene, environment and mobility issues, eating and drinking, body temperature control issues and nursing, hyperthermia, hypothermia, urinary and defecation issues and nursing, drug administration.</p> | | | | | | | | | |
| <p>BASICS TO PHYSICAL MEDICINE AND REHABILITATION Principles of rehabilitation, physical therapy and occupational therapy, principles of social, psychological and professional rehabilitation, teamwork in rehabilitation, biopsychosocial functions, physical and functional</p> | | | | | | | | | |

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| capacity, health promoting physical activity, determination of disability and working capacity, speech and swallowing disorders and their correction. | | | | | | | | | |
| BASICS OF FORENSIC MEDICINE Principles of thanatology and forensic psychiatry; deontology and ethics of forensic medicine; influence of external factors to the human body, hypothermia, frostbite, overheating, burn, asphyxia and its types, drowning, sexual crimes, gunshot wounds, stab-wounds, cut-wounds, bone fracture mechanisms, injuries caused by physical and chemical factors, effects of electricity on human body, injuries caused by mechanical factors, health impairment level evaluation. | | | | | | | | | |
| Total: | | | | 5 | | | | 130 | |

| Assessment strategy | Weight | Assessment period | Assessment criteria |
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| Internship Exam | | | |
| Examination in the computed classroom | 50% | After completing of Internship II course | <p>The examination takes place in the computed classroom of the Centre of Information Technology Services.</p> <p>During the exam the student receives described clinical cases in obstetrics-gynaecology, surgery-traumatology, paediatrics and internal diseases. Each clinical case consists of six parts.</p> <p>A student:</p> <p>In Part 1 should specify the medical history/anamnesis.</p> <p>In Part 2 should describe the patient's clinical examination.</p> <p>In Part 3 should order the laboratory tests necessary for making a diagnosis.</p> <p>In Part 4 should make a request for examination results.</p> <p>In Part 5 should define the final clinical diagnosis.</p> <p>In Part 6 should prescribe the treatment.</p> <p>Assessment rating is as follows:</p> <p>10 (excellent): Excellent knowledge and abilities.</p> <p>9 (very good): Strong, good knowledge and abilities.</p> <p>8 (good): Higher than moderate knowledge and abilities.</p> |

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| | | | <p>7 (sufficient): Moderate knowledge and abilities with some non-substantial mistakes.</p> <p>6 (satisfactory): Lower than moderate knowledge and abilities (skills) with some mistakes.</p> <p>5 (weak): Knowledge and abilities (skills) meet the minimal requirements.</p> <p>4 (unsatisfactory): The minimum requirements were not met.</p> |
| Final Exam | | | |
| Examination in the computed classroom | 50% | After completing of XII semester | <p>Knowledge of course is evaluated by 10 points system:</p> <p>10 point – excellent knowledge and skills, synthesis and understanding, knowledge application level, the student mastered the studied material well, is able to analyse and summarize, accurately uses the concepts and terms, detailed and correct answers to all questions, approximate percentage of required knowledge 93–100 % of questions answered correctly;</p> <p>9 point – strong, good knowledge and abilities, approximate percentage of required knowledge 83,7–92,9 % of questions answered correctly;</p> <p>8 point – better than average knowledge and abilities, understanding and knowledge application level, the student ably mastered the studied material, is able to organize and summarize, and uses correctly the concepts and terms, might be some minor isolated non-essential errors, approximate percentage of required knowledge 75,3–83,6 % of questions answered correctly;</p> <p>7 point – average knowledge and abilities, understanding and knowledge application level, nonessential mistakes, no more than two significant error responses, approximate percentage of required knowledge 66,9–75,2 % of questions answered correctly;</p> <p>6 point – knowledge and abilities worse than average, approximate percentage of required knowledge 58,5–66,8 % of questions answered correctly;</p> <p>5 point – knowledge and abilities, adequate to minimal requirements, understanding and knowledge application level, lots of errors, approximate percentage of required knowledge 50,1–58,4 % of questions answered correctly;</p> <p>4 point and less – minimal requirements not fulfilled, student’s knowledge is insufficient, terms and concepts used incorrectly: 4 point – approximate percentage of required knowledge 40–50,0 % of questions answered correctly;</p> |

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| | | | <p>3 point – approximate percentage of required knowledge 30–39,9 % of questions answered correctly;</p> <p>2 point – approximate percentage of required knowledge 20–29,9 % of questions answered correctly;</p> <p>1 point – approximate percentage of required knowledge < 20 % of questions answered correctly.</p> |
| Final Evaluation | 100% | Upon passing the Internship Exam and Final Exam | The overall assessment consists of the Internship exam and the Final exam. |

| Author | Year of publication | Title | No of periodical or vol. of publication | Publication place and publisher or Internet link |
|--|----------------------------|--|--|---|
| Required reading Internship | | | | |
| Zane RD | 2019 | Pocket Emergency Medicine | 4th edition | https://www.medicosrepublic.com/pocket-emergency-medicine-4th-edition-pdf-free-download/ |
| Cameron P, Little M, Biswadev M, Conor D | 2019 | Textbook of Adult Emergency Medicine | 5th edition | Elsevier |
| Vaitkaitis D, Pranckūnas A | 2017 | Urgent medical care | | Kaunas |
| | 2020 | The Law of the Republic of Lithuania on the Registration of the Death of a Human Being, and on Critical Conditions | | https://e-seimas.lrs.lt/portal/legalAct/t/TAD/TAIS.37504/BPFIAGLGpJ |
| | 2021 | European Resuscitation Council Guidelines for Resuscitation | | https://cprguidelines.eu/ |
| | 2021 | Surviving Sepsis Campaign Guidelines 2021 | | https://www.sccm.org/Clinical-Resources/Guidelines/Guidelines/Surviving-Sepsis-Guidelines-2021 |
| Editor Šapoka V | 2020 | An Intern's Practical Manual | 1-598 | Vilnius |
| Editor Scharschmidt BF | 2007 | Internal Medicine | 1st edition | Cambridge Pocket Clinicians. https://booktree.ng/cambridge-pocket-clinicians-internal-medicine-1st-edition/ |
| Editor Budrys V | 2011 | Urgent Neurology | | Vilnius University Library Vilnius: UAB Vaistų žinios |
| Editor Steven L, Busl KM | October 2021 | Continuum - Lifelong Learning in Neurology. Neurocritical Care. | Vol.27, No.5 | https://journals.lww.com/continuum/toc/2021/10000 |
| LaHue S, Levin M | 2021 | Emergency Neurology (2 ed.). | 2nd edition | |

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| Žaliūnas R. et al. | 2020 | Basic cardiology for students | | http://ebooks.vitaelitera.lt/eb/2303/kardiologijos-pagrindai-studentams/ |
| Griffin BP | 2018 | Manual of Cardiovascular Medicine | | https://ebookcentral.proquest.com/lib/viluniv-ebooks/detail.action?docID=6023334 |
| Brugha R, Marlais M, Abrahamson E | 2015 | Clinical Examination Guide | | Vilnius University Library Vilnius: UAB Vaistų žinios |
| Kliegman RM | 2020 | Nelson Textbook of Paediatrics, 21st Edition | | https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20161017121?indexOverride=GLOBAL |
| Lissauer T, Carroll W | 2022 | Illustrated Textbook of Paediatrics, | 6th edition | https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20190011636 |
| Editor Pundzius J | 2012 | Surgery: General surgery | Volume I | Vitae Litera |
| Editor Pundzius J | 2012 | Surgery: Special surgery | Volume II | Vitae Litera |
| Williams NS, O'Connell PR, McCaskie A | 2018 | Bailey & Love's Short Practice of Surgery | 27th edition | CRC Press |
| Kocius, M, Porvaneckas, N, et al. | 2016 | Orthopaedics Traumatology | | Vilnius University publishing. (https://virtualiblioteka.vu.lt/primo-explore/fulldisplay?docid=VUB01000827245&context=L&vid=VU&lang=lt_LT&search_scope=VU_IG_ALL&adaptor=Local%20Search%20Engine&tab=default_tab&query=any,contains,Ortopedi ja%20traumatologija) |
| Solomon L, Warwick DJ, Nayagam S | 2014 | Apley and Solomon's concise system of orthopaedics and trauma | | Crc Press. (https://virtualiblioteka.vu.lt/primo-explore/fulldisplay?vid=VU&docid=VUB01000718918) |
| | 2019 | Diagnostics and Treatment Methods in Obstetrics and Neonatology | | sam.lrv.lt/lt/veiklos-sritys/programos-ir-projektai/sveicarijos-paramos-programa/akuserijos-ir-neonatologijos-diaagnostikos-ir-gydymo-metodikos/akuserijos-diaagnostikos-ir-gydymo-metodikos |
| Magowan BA | 2019 | Clinical Obstetrics and Gynaecology | 4th edition | https://www.clinicalkey.com/#!/browse/book/3-s2.0-C2016003512X |
| Smith RP | 2017 | Netter's Obstetrics and Gynaecology | 3th edition | https://www.clinicalkey.com/#!/browse/book/3-s2.0-C20150058695 |

| Required reading Medical Studies Program | | | | |
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| R. S. Ašoklis | 2018 | Eye diseases | - | https://is.vu.lt/pls/klevas/login |
| V. Paliulytė | 2018 | Obstetrics | - | https://is.vu.lt/pls/klevas/login |
| J. Šipylaitė | 2018 | Anaesthesiology and Reanimathology | - | https://is.vu.lt/pls/klevas/login |
| E. Lesinskas | 2018 | Ear, nose, throat diseases | - | https://is.vu.lt/pls/klevas/login |
| S. Petraitienė | 2018 | General Paediatrics and Neonatology | - | https://is.vu.lt/pls/klevas/login |
| A. Gintautas | 2018 | Pharmacology | | https://is.vu.lt/pls/klevas/login |
| G. Sadauskaite | 2018 | Gastroenterology and abdominal surgery | - | https://is.vu.lt/pls/klevas/login |
| Ž. Bumbulienė | 2018 | Gynaecology | - | https://is.vu.lt/pls/klevas/login |
| S. Glaveckaitė | 2018 | Cardiology and cardiovascular surgery | - | https://is.vu.lt/pls/klevas/login |
| J. Gulbinovič | 2018 | Clinical pharmacology, drug approval and safety | - | https://is.vu.lt/pls/klevas/login |
| B. Tumienė | 2018 | Clinical genetics | - | https://is.vu.lt/pls/klevas/login |
| A. E. Tamošiūnas | 2018 | Clinical radiology | - | https://is.vu.lt/pls/klevas/login |
| J. Šipylaitė | 2018 | Critical Care Medicine, Transfusiology and Toxicology | - | https://is.vu.lt/pls/klevas/login |
| D. Karčiauskaitė | 2018 | Laboratory medicine | - | https://is.vu.lt/pls/klevas/login |
| E. Gefenas | 2018 | Medical ethics | - | https://is.vu.lt/pls/klevas/login |
| J. Dadonienė | 2018 | Research methods and biostatistics | - | https://is.vu.lt/pls/klevas/login |
| L. Rimševičius | 2018 | Nephrology and Urology | - | https://is.vu.lt/pls/klevas/login |
| D. Jatužis | 2018 | Neurology and Neurosurgery | - | https://is.vu.lt/pls/klevas/login |
| S. Lesinskienė | 2018 | Psychology, professional Communication and Psychosomatic Medicine | - | https://is.vu.lt/pls/klevas/login |
| S. Lesinskienė | 2018 | Psychiatry, child and adolescent psychiatry, psychotherapy | - | https://is.vu.lt/pls/klevas/login |
| E. Danila | 2018 | Pulmonology, phthisiology and thoracic surgery, clinical immunology | - | https://is.vu.lt/pls/klevas/login |
| I. Butrimienė | 2018 | Rheumatology, gerontology, endocrinology | - | https://is.vu.lt/pls/klevas/login |
| A. Beržanskytė | 2018 | Social medicine. Health Law and Economics | - | https://is.vu.lt/pls/klevas/login |
| J. Stasiūnienė | 2018 | Forensic medicine | - | https://is.vu.lt/pls/klevas/login |
| N. Porvaneckas | 2018 | Traumatology, orthopaedics, plastic and reconstructive surgery | - | https://is.vu.lt/pls/klevas/login |

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| L. Jančorienė | 2018 | Infectious diseases and epidemiology | - | https://is.vu.lt/pls/klevas/login |
| R. Kemežys | 2018 | Children diseases, paediatric surgery | - | https://is.vu.lt/pls/klevas/login |
| V. Šapoka | 2018 | Differential diagnosis of internal medicine, haematology and family medicine | - | https://is.vu.lt/pls/klevas/login |
| V. Ožeraitienė | 2018 | Fundamentals of Internal Medicine and Nursing | - | https://is.vu.lt/pls/klevas/login |
| M. Jakubauskienė | 2018 | Public health | - | https://is.vu.lt/pls/klevas/login |
| Ministry of health | 2022 | Dėl Lietuvos medicinos normos MN 7:2022 „Medicinos gydytojas“ patvirtinimo“ 2022 m. gegužės 9 d. Įsakymas Nr. V-930 [angl. – Order "On the approval of the Lithuanian medical norm "Medical doctor" MN 7:2022, adopted in 2022 May 9] | - | Available from: V-930 Dėl Lietuvos medicinos normos MN 7:2022 „Medicinos gydytojas“ patvirtinimo (etar.lt) |