

SYLLABUS

Year of study cycle starting in the 2023/2024 academic year

Course/Module Name	PAEDIATRICS	
Name of the unit(s) where the course is taught	Department of Paediatrics and Nephrology, Department of Paediatrics, Endocrinology, Diabetology with Cardiology Divisions, Department of Paediatrics, Gastroenterology, Hepatology, Nutrition, Allergology and Pulmonology, Department of Paediatrics, Rheumatology, Immunology and Metabolic Bone Diseases, Department of Paediatrics, Oncology and Haematology, Department of Paediatric Infectious Diseases, Department of Medical Simulations, Department of Neonatology and Newborn Intensive Care.	
Department email:	Department of Paediatrics and Nephrology: iklinped@umb.edu.pl Department of Paediatrics, Endocrinology, Diabetology with Cardiology Divisions: 2Klchdz@umb.edu.pl , Department of Paediatrics, Gastroenterology, Hepatology, Nutrition, Allergology and Pulmonology: pegaz@umb.edu.pl Department of Paediatrics, Rheumatology, Immunology and Metabolic Bone Diseases: pediatria@umb.edu.pl , Department of Paediatrics, Oncology and Haematology: onkdziec@umb.edu.pl , Department of Paediatric Infectious Diseases: kloz@umb.edu.pl Department of Medical Simulations: symulacje@umb.edu.pl , Department of Neonatology and Newborn Intensive Care: neonatologia@umb.edu.pl .	
Faculty	Faculty of Medicine with the Division of Dentistry and Division of Medical Education in English	
Name of the program:	Medical	
Level of study:	Uniform Master Studies	
Form of studies	Full-time ☒ Part-time ☐	
Language of instruction:	Polish ☐ English ☒	
Type of course	Mandatory ☒ Optional ☐	
Year of study/semester	I ☐ II ☐ III ☒ IV ☒ V ☒ VI ☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☒ 6 ☒ 7 ☒ 8 ☒ 9 ☒ 10 ☒ 11 ☒ 12 ☒	
Introductory subjects with initial requirements	Implementation of learning outcomes in terms of knowledge, skills, and social competencies from previous years of study.	
Number of didactic classes divided into form of class conduct	YEAR III: 85 hours (including online) — 28 hours of lectures, 20 hours of seminars, 37 hours of practical classes YEAR IV: 140 hours (including online) — 46 hours of lectures, 19 hours of seminars, 75 hours of practical classes YEAR V: 105 hours (including online) — 32 hours of lectures, 20 hours of seminars, 53 hours of practical classes YEAR VI: 120 hours (including online) — 20 hours of seminars, 100 hours of practical classes + selected clinical subject	
Course assumptions and objectives	Students should acquire knowledge in the following areas: medical history and physical examination of a sick child, morphological and physiological differences in systems and organs, nutrition, immunoprophylaxis, child development, causes, symptoms, principles of diagnosis and therapeutic management of childhood illnesses. Students should be able to: conduct a medical history and physical examination of a child, plan and interpret additional tests, schedule specialist consultations, establish the diagnosis and treatment of childhood illnesses, and perform basic medical procedures and treatments. The aim of this course is to impart knowledge, skills, and social competencies related to childhood illnesses, including their epidemiology, causes, clinical symptoms, diagnosis, differentiation, treatment, preventive measures and rehabilitation actions.	
Didactic methods	- lecture - seminar - practical class - practical clinical problem-solving - discussion - analysis of clinical cases in the form of a case history - presentation of clinical cases - independent learning - literature analysis - consultations: Department of Paediatrics and Nephrology: every 2nd and 4th Thursday of the month, 2:00 PM - 3:00 PM. Department of Paediatrics, Endocrinology, Diabetology with Cardiology Divisions: every 2nd and 4th Thursday of the month, 2:00 PM - 3:00 PM. Department of Paediatrics, Gastroenterology, Hepatology, Nutrition, Allergology and Pulmonology: every 2nd Tuesday of the month, 2:00 PM - 3:00 PM.	

	Department of Paediatrics, Rheumatology, Immunology and Metabolic Bone Diseases: every 2nd and 4th Wednesday of the month from 2:00 PM to 3:00 PM. Department of Paediatrics, Oncology and Haematology: every 1st Tuesday of the month from 2:00 PM to 3:00 PM. Department of Paediatric Infectious Diseases: Every 2nd Tuesday of the month from 2:00 PM to 3:00 PM. Department of Medical Simulations: every Tuesday of the month from 2:00 PM to 3:00 PM. Department of Neonatology and Newborn Intensive Care: every 1st Friday of the month from 2:00 PM to 3:00 PM.
Name of the person teaching the course	Head of the unit/research and teaching staff employed at the unit
Name of the person responsible for teaching	Prof. Dr. Hab. Anna Wasilewska – Director of the University Children’s Teaching Hospital Heads of Clinics/Departments in individual teaching units.

Learning Outcome Symbol and Number	Description of the Field-Specific Learning Outcomes	Course Format	Methods for Verifying Achievement of the Intended Learning Outcomes
Knowledge			
E.W1	Knows the environmental and epidemiological conditions of the most common diseases;	Lectures, seminars, practical classes	<u>Summative methods, e.g.:</u> - oral examination - written examination (test, descriptive examination – essay, report, SSQ, etc.) <u>Forming methods, e.g.:</u> - observation of student work - initial test - evaluation of activity during classes - passing of individual actions - evaluation of preparation for classes - discussion during classes - partial credits - initial credits - case description
E.W2	Knows the principles of nutrition for healthy and sick children, including breastfeeding, vaccinations, and maintaining a child's health assessment;	See above	
E.W3	Knows and understands the causes, symptoms, principles of diagnosis, and therapeutic management of the most common childhood diseases: 1) rickets, tetany, seizures, 2) heart defects, myocarditis, endocarditis and pericarditis, cardiomyopathy, cardiac arrhythmias, heart failure, hypertension, syncope, 3) acute and chronic diseases of the upper and lower respiratory tract, congenital respiratory defects, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, and angioedema. 4) anaemia, bleeding disorders, bone marrow failure, childhood cancers, including solid tumours typical of childhood, 5) acute and chronic abdominal pain, vomiting, diarrhoea, constipation, gastrointestinal bleeding, peptic ulcer disease, nonspecific bowel diseases, pancreatic diseases, cholestasis and liver diseases, and other acquired diseases and congenital defects of the gastrointestinal tract, 6) urinary tract infections, congenital defects of the urinary tract, nephrotic syndrome, kidney stones, acute and chronic renal failure, acute and chronic nephritis, systemic kidney diseases, urination disorders, vesicoureteral reflux disease, 7) growth disorders, thyroid and parathyroid diseases, adrenal diseases, diabetes, obesity, puberty and gonadal function disorders, 8) cerebral palsy, encephalitis and meningitis, 9) the most common infectious diseases of childhood, 10) genetic syndromes, 11) connective tissue diseases, rheumatic fever, juvenile arthritis, systemic lupus erythematosus, Dermatomyositis	See above	
E.W4	Knows the issues of: child abuse and sexual abuse, mental retardation, behavioural disorders: addictions, eating and excretion disorders in children;	See above	
E.W6	Knows the most common life-threatening conditions in children and the procedures to follow in these conditions;	See above	
E.W34	Knows and understands the causes, symptoms, principles of diagnosis and therapeutic and preventive management of the most common bacterial, viral, parasitic and fungal	See above	

	diseases, including pneumococcal infections, viral hepatitis, acquired immunodeficiency syndrome AIDS, sepsis and nosocomial infections;		
E.W37	knows and understands the causes, symptoms, principles of diagnosis, and therapeutic procedures for the most common hereditary diseases;	See above	
Skills			
E.U2	conducts a medical interview with the child and his family;	practical classes, seminars, and practical clinical problem-solving.	<u>Summary methods:</u> - practical exam (with simulator, mannequin) - realization of a specific task - project, presentation <u>Forming methods, e.g.:</u> - observation of student work - initial test - evaluation of activity during classes - passing of individual actions - evaluation of preparation for classes - discussion during classes - partial credits - initial credits - case description
E.U4	Performs a physical examination of a child of any age;	See above	
E.U7	Assesses the general condition, state of consciousness of the patient	See above	
E.U8	Assesses the condition of the newborn on the Apgar scale and assesses its maturity, and examines newborn reflexes;	See above	
E.U9	Compares anthropometric and blood pressure measurements with data from growth charts;	See above	
E.U10	Can assess the stage of sexual maturation;	See above	
E.U11	Conducts balance tests;	See above	
E.U12	Performs differential diagnosis of the most common diseases of children;	See above	
E.U13	Assesses and describes the somatic state of the patient;	See above	
E.U14	Recognizes imminent life-threatening conditions;	See above	
E.U16	Plans diagnostic, therapeutic and preventive procedures;	See above	
E.U17	Analyses possible side effects of individual drugs and interactions between them;	See above	
E.U18	Proposes individualization of existing therapeutic guidelines and other methods of treatment in the face of ineffectiveness or contraindications to standard therapy;	See above	
E.U21	Can recognize conditions in which life expectancy, functional status or patient preferences limit treatment in accordance with the guidelines specified for a given disease	See above	
E.U24	Interprets microbiological test results and identifies the causes of deviations from the norm;	See above	
E.U25	Is able to use nutritional treatment (including enteral and parenteral nutrition);	See above	
E.U27	Can qualify the patient for vaccinations;	See above	
E.U29	Is able to perform basic procedures and medical procedures, including: 1) body temperature measurement (superficial and core), pulse measurement, non-invasive blood pressure measurement, 2) monitoring vital signs using a cardiac monitor, pulse oximetry, 3) spirometry, oxygen therapy, assisted and replacement ventilation, 5) intravenous, intramuscular, and subcutaneous injections, peripheral vein cannulation, peripheral venous blood sampling, blood culture collection, arterial blood sampling, collection of arterialized capillary blood, 7) urinary bladder catheterization in children, gastric probing, gastric lavage, enema, 8) standard resting electrocardiogram with interpretation, electrical cardioversion and cardiac defibrillation 9) simple test strips and blood glucose measurement;	Practical Classes	
E.U30	Assists in carrying out the following medical procedures and treatments: 1) transfusion of blood and blood products, 5) lumbar puncture 6) fine needle biopsy 7) epidermal tests 8) intradermal and scarification tests, and interprets their results;	Practical Classes	
E.U32	Can plan specialist consultations;	Practical	

		Classes	
E.U33	Is able to implement basic medical treatment in acute poisonings	Practical Classes	
E.U38	Is able to keep medical records of the patient	Practical Classes	
Social competencies			
K1	Respects the doctor-patient privilege and patient rights	Practical Classes	<u>Summary methods:</u> - ongoing assessment by the teacher (observation) <u>Forming methods, e.g.:</u> - observation of student work - discussion during classes - opinions of patients and colleagues
K2	Is able to establish and maintain deep and respectful contact with a sick patient as well as show understanding for ideological and cultural differences;	Practical Classes	
K3	is guided by the good of the patient;	Practical Classes	
K4	Notifies and recognizes their own limitations and self-assesses educational deficits and needs;	Practical Classes	
K5	Undertakes actions with respect to the patient on the basis of ethical principles with awareness of social determinants and limitations stemming from the disease;	Practical Classes	See above
K6	Promotes pro-health behaviours;	Practical Classes	See above
K7	Uses objective sources of information;	Practical Classes	See above
K8	Formulates conclusions based on own measurements or observations;	Practical Classes	See above
K9	Implements the principles of professional friendliness and cooperation in a team of specialists, also with representatives of other medical professions including a multi-cultural and multi-national environment;	Practical Classes	See above
K10	Formulates opinions concerning various aspects of professional activity;	Practical Classes	See above
K11	Accepts responsibility related to decisions made in the course of professional activity, including in terms of the safety of oneself and other people.	Practical Classes	See above

ECTS points	Year 3 – 6; Year 4 – 6, Year 5 – 5, Year 6 – 8
Student workload	
Activity type	Number of hours to complete the activity
Activities requiring instructor participation:	
1. Course realization: lectures (<i>as per the syllabus</i>)	III year: 28, IV year: 46, V year: 32; Total 106h
2. Course realization: classes (<i>as per the syllabus</i>)	III year: 37, IV year: 75, V year: 53, VI year: 100h, Total 265h
3. Course realization: seminars (<i>as per the syllabus</i>)	III year: 20, IV year: 19, V year: 20, VI year: 20, Total 79h
4. Participation in consultations	10
	Hours in total 460
Independent doctoral student's work:	
1. Independent preparation for theoretical and practical classes (project preparation, documentation, case study, etc.)	174h
2. Independent preparation for tests/credits.	60h
3. Independent preparation for the final exam/credit.	100h
	Total hours: 334h

Subject programme contents:	
Learning outcomes (symbol and number)	Subject area
Clinic of Paediatrics, Rheumatology, Immunology and Metabolic Bone Diseases - Year III	
E.W1, E.W2, E.W3/1, E.W3/10, E.W3/11, E.W4, E.W6, E.W37	LECTURES: 1) Introduction to paediatrics, general issues regarding child development and paediatric care, ethical issues in childhood medicine; standards of practice in modern paediatrics 2) Basics of immunoprophylaxis – general principles of vaccination 3) Basics of immunoprophylaxis – National Immunization Program, Definition and types of adverse reactions following vaccination (ADRs);

	principles of management in the event of ADRs; principles of ADR reporting: ADR reporting forms, post-exposure vaccinations 4) Assessment of child psychomotor development 5) Nutrition Basics for Healthy Children 6) Etiopathogenesis and Clinical Presentation of Selected Metabolic Diseases (Inborn Errors of Metabolism) Part 1 7) Etiopathogenesis and Clinical Presentation of Selected Metabolic Diseases (Inborn Errors of Metabolism) Part 2 8) Pubertal Physiology and Health Problems Associated with Puberty 9) Eating Disorders in Children and Adolescents: Anorexia Nervosa, Bulimia Nervosa 10) Contemporary Treatment Standards for Primary Immunodeficiencies 11) Child Abuse Syndrome – Medical and Legal Aspects 12) Cerebral Palsy, Fetal Alcohol Syndrome (FAS) 13) Metabolism, Action, and Clinical Significance of Vitamin D and Selected Calcium-Phosphate Disorders in Children 14) Principles of Treatment for Childhood Rheumatic Diseases
E.W1, E.W2, E.W3/1, E.W3/10, E.W3/11, E.W4, E.W37 E.U7, E.U9, E.U10, E.U11, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U21, E.U24, E.U27	SEMINARS: 1) Paediatric medical history. Verbal and nonverbal communication in the doctor-patient relationship in paediatrics. Principles of taking a paediatric history. 2) Methods for assessing somatic (physical) development in children. Application and interpretation of clinical anthropometry in paediatrics. 3) Practical immunoprophylaxis (2 hours). Principles of qualifying a child for vaccinations. 4) Musculoskeletal examination. Arthritis in children. 5) Juvenile idiopathic arthritis (JIA). Systemic connective tissue diseases in children. 6) Selected systemic vasculitides in children (Henoch-Schönlein purpura, Kawasaki disease, rheumatic fever). 7) Neuropediatric examination. 8) Screening for congenital metabolic diseases (neonatal screening). 9) Febrile seizures and other seizure syndromes in children. 10) Clinical picture of the most common primary immunodeficiency syndromes (PID)
E.W1, E.W2, E.W3/11, E.W6, E.W37 E.U2, E.U4, E.U7, E.U9, E.U10, E.U11, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U21, E.U24, E.U27, E.U29, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: 1) Physical Examination: Paediatric Interview. Verbal and Nonverbal Communication in the Doctor-Patient Relationship in Paediatrics. 2) Clinical Anthropometry – Practical Aspects. Presentation of Anthropometric Instrumentation and Principles of Taking Measurements. Interpretation of Results. Principles of Using Percentile Charts. Discussion of the Concept of Normal in Paediatrics. 3) Practical Training in the Principles of Physical Examination of Children. 4) Practical Aspects of Vaccination Eligibility, Developing Individual Vaccination Schedules, Facts and Myths About Vaccinations and Vaccination Contraindications – How to Talk to a Parent Refusing Their Child's Vaccinations. 5) Principles of Conducting and Documenting Screening Tests. Balance Sheet Tests. Case Studies 6) Causes, symptoms, and principles of diagnosis and therapeutic management in paediatric arthritis and JIA 7) Causes, symptoms, and principles of diagnosis and therapeutic management in systemic connective tissue diseases in children (systemic lupus erythematosus, dermatomyositis, scleroderma) 8) Causes, symptoms, and principles of diagnosis and therapeutic management in systemic vasculitides (Schönlein-Henoch disease, Kawasaki disease, rheumatic fever) 9) Causes, symptoms, and principles of diagnosis and therapeutic management in febrile seizures. Seizure in a febrile child. Management of status convulsivus 10) Causes, symptoms, and principles of diagnosis and therapeutic management in the most common primary immunodeficiency syndromes (PIDs)
Department of Paediatrics and Nephrology - Year IV:	
E.W1, E.W2, E.W3/3, E.W3/6, E.W6, E.W34	LECTURES: 1) Urinary Tract Infection 2) New Guidelines for the Management of Children with Urinary Tract Infections

	3) Vesicoureteral Reflux — Principles of Diagnosis and Treatment 4) Diagnosis and Management of Congenital Urinary Tract Anomalies in Children 5) Diagnosis of Isolated Proteinuria in Children, Functional Proteinuria 6) The Most Common Causes of Nephrotic Syndrome in Children 7) The Most Common Causes, Diagnosis, and Principles of Management of Hematuria in Children 8) Selected Glomerulonephritis in Children 9) Viral and Bacterial Infections of the Upper Respiratory Tract in Children 10) Acute Lower Respiratory Tract Diseases (ADR) 11) Recommendations for the Treatment of Respiratory Tract Infections in Children
E.W1, E.W2, E.W3/3, E.W3/6, E.W34	SEMINARS: 1) Respiratory Symptoms (Cough, Shortness of Breath, Wheezing, Apnea, Hemoptysis) 2) Viral and Bacterial Upper Respiratory Tract Infections in Children 3) Clinical presentation, principles of diagnosis and treatment of pneumonia, classification of pneumonias according to the etiological factor, symptoms and treatment of lobar, bronchial, and interstitial pneumonia, pleurisy — causes, symptoms, diagnosis, and treatment). 4) Acute pyelonephritis, cystitis — clinical presentation, factors predisposing to recurrent urinary tract infections, most common urinary tract defects.
E.W1, E.W2, E.W3/3, E.W3/6, E.W6, E.W34 E.U2, E.U4, E.U7, E.U9, E.U10, E.U12, E.U13, E.U16, E.U24, E.U29/1, E.U29/2, E.U29/7, E.U30/6, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: 1) Discussion of clinical cases of patients with acute respiratory infections (colds, pharyngitis, streptococcal tonsillitis, laryngitis, tracheitis, bronchiolitis, bronchitis). 2) Discussion of the diagnosis and treatment of pneumonia in children; discussion of clinical cases of lobar, bronchopneumonia, interstitial pneumonia, and pleurisy based on patients hospitalized in the Department or the medical records of hospitalized patients. 3) Discussion of the standard diagnostic and therapeutic procedure for a child with acute pyelonephritis, cystitis, and recurrent urinary tract infections based on an analysis of the medical records of patients cared for in the Department and the Nephrology Department. Examination of patients present in the ward — analysis of factors predisposing to infection. Examination of patients present in the ward — analysis of factors predisposing to infection. Activities at the Department of Nephrology Examination of patients with acute upper respiratory tract infections (otitis, tonsillitis, tonsillitis). Practical examination training - examination of the oral cavity and oropharynx; ear examination: otoscopy 4) Practical Classes at Centre for Medical Simulation (CMS) 1. Interview and physical examination of a child with respiratory diseases. 2. Irregularities in the interview, physical examination, and additional tests in a child with respiratory diseases. 3. Discussion and training of basic procedures in the care of children during hospitalization.
Department of Paediatrics, Endocrinology, Diabetology with Cardiology Divisions - Year IV:	
E.W1, E.W2, E.W3/2, E.W3/7, E.W3/10, E.W6, E.W37	LECTURES: 1) Thyroid Diseases: Hyperthyroidism 2) Thyroid Diseases: Hypothyroidism 3) Thyroid Diseases: Simple Goiter in Children 4) Cushing's Syndrome 5) Precocious Puberty 6) Parathyroid Diseases in Children 7) Polyendocrinopathies 8) MEN Syndromes 9) Etiopathogenesis of Type 1 Diabetes 10) Diabetes Treatment Prospects - Future 11) Monogenic Forms of Diabetes in Children 12) Type 2 Diabetes and Metabolic Syndrome in Children 13) Chronic Complications of Diabetes in Children 14) Heart Failure in Children 15) Cardiac Arrhythmias 16) Conduction Disorders 17) Cardiomyopathy

	18) Infective endocarditis and pericarditis 19) Channelopathies 20) Myocarditis
E.W1, E.W2, E.W3/2, E.W3/7, E.W6, E.W37 E.U12, E.U16, E.U17, E.U18, E.U32	SEMINARS: 1) Introduction to Diabetes Mellitus (Type 1, 2, MODY) 2) Acute Conditions in Endocrinology and Diabetology 3) Basics of Type 1 Diabetes Therapy in Children (MDI, Pump Therapy) 4) Diseases of the Anterior and Posterior Pituitary Lobe in Children 5) Thyroid Tumours and Nodular Thyroid Disease 6) ECG Assessment — Paediatric Specifics 7) Congenital Heart Defects Part I — Ductal-Dependent Heart Defects 8) Congenital Heart Defects Part II 9) Chest Pain — Do Children Have Heart Attacks? 10) Heart Murmur in Children — Is It a Defect?
E.W1, E.W2, E.W3/2, E.W3/7, E.W6, E.W37 E.U2, E.U4, E.U7 E.U8, E.U9, E.U10, E.U11, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U24, E.U29/1, E.U29/2, E.U29/8, E.U29/9, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: ENDOCRINOLOGY and DIABETOLOGY COURSE: 1) Growth hormone deficiency and primary IGF-1 deficiency. Causes, diagnosis, and treatment 2) Adrenal diseases (congenital adrenal hyperplasia, primary adrenal insufficiency — Addison's syndrome) 3) Ketoacidosis 4) Hypoglycemia in diabetes 5) Outpatient care in diabetology and endocrinology CARDIOLOGY COURSE: 1) Indications for echocardiography, general principles of testing, diagnostic possibilities 2) Echocardiography in heart defects 3) Practical exercises with ECG. ECG assessment in heart defects 4) Indications for exercise testing and Holter monitoring 5) Arterial hypertension in developmental age
Department of Paediatric Infectious Diseases - Year IV:	
E.W1, E.W2, E.W3/8, E.W3/9, E.W6, E.W34	LECTURES: 1) Healthcare-Associated Infections in Children 2) Preventing Hospital-Acquired Infections — Hand Hygiene, Isolation Rules 3) New Threats of Infectious Diseases in Children 4) Children on the Go 5) Invasive Meningococcal and Pneumococcal Disease 6) Tick-Borne Diseases in Children (TBE, Lyme Disease) 7) Pertussis in Vaccinated and Unvaccinated Children 8) Influenza and Viral Respiratory Infections in Children Childhood Tuberculosis 9) Infectious Causes of Lymphadenopathy Infectious Mononucleosis 10) HIV Infection in Children, Vertical Transmission Prevention
E.W1, E.W3/8, E.W3/9, E.W6, E.W34 E.U7, E.U12, E.U16, E.U17, E.U24, E.U32	SEMINARS: 1) Current guidelines for the management of diarrhoea in children 2) Viral childhood rashes (varicella, erythema infectiosum, erythema subitum, HSV infection, measles, hand, foot, and mouth disease) 3) Bacterial childhood rashes (GAS infections, staphylococcal infections) 4) Central nervous system infections in children (enterovirus, HSV, mumps, listeriosis, fungal, purulent) 5) Parasitic diseases (acquired toxoplasmosis, toxocariasis, ascariasis, enterobiasis, giardiasis, scabies)
E.U2, E.U4, E.U7, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U24, E.U27, E.U29, E.U30/5, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: 1) Diarrhoea in children: diagnosis, treatment: oral and intravenous rehydration, acid-base and water-electrolyte disturbances 2) Viral diseases in children: patient examination, differential diagnosis 3) Bacterial diseases in children: differentiation, principles of antibiotic therapy 4) Symptoms of neuroinfections in infants and older children. Lumbar puncture. Cerebrospinal fluid examination. Treatment 5) Symptoms, diagnosis, and treatment of parasitic diseases
Department of Neonatology and Newborn Intensive Care - Year IV:	
E.W1, E.W2, E.W6, E.W34, E.W37	LECTURES: 1) Premature Newborn 3) Neonatal Pathologies

E.W1, EW2, E.W6, E.W34, E.W37 E.U2, E.U4, E.U7, E.U8, E.U9, E.U13, E.U14, E.U27 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES 1) Objective and physical examination of the newborn, taking into account transitional neonatal conditions. Assessment of the newborn's condition according to the Apgar scale, assessment of the newborn's general condition, assessment of newborn maturity, and examination of newborn reflexes. Taking anthropometric measurements and comparing the results with data from growth charts. Discussion of newborn eligibility for vaccinations and the principles of screening. Prophylactic procedures used in newborns. 2) A physical and medical examination of the newborn, including transitional neonatal conditions. Discussion of nutrition for term and premature newborns. Discussion of neonatal jaundice, including measurement of blood and transcutaneous bilirubin levels, and comparison of results with data from centile charts.
Department of Paediatrics, Gastroenterology, Hepatology, Nutrition, Allergology, and Pulmonology - Year V	
E.W1, E.W2, E.W3/3, E.W3/5, E.W6, E.W32	LECTURES: 1) Food allergy and food intolerance 2) Bronchial asthma. Allergic rhinitis 3) Chronic hepatitis (viral, autoimmune, NAFLD, metabolic) 4) Selected aspects of hyperbilirubinemia in development (cholestasis, functional hyperbilirubinemia, selected metabolic liver diseases) 5) Cholelithiasis and biliary tract diseases. Pancreatic diseases 6) Cirrhosis and liver failure (acute, chronic). Portal hypertension 7) Inflammatory bowel disease 8) Eosinophilic gastrointestinal inflammation. Colonial polyps 9) Celiac disease and other gluten-related diseases. Chronic diarrhoea 11) Upper and lower gastrointestinal bleeding 12) Peptic ulcer disease. Gastritis. Helicobacter pylori infection 13) Functional gastrointestinal disorders (Rome IV criteria)
E.W1, E.W2, E.W3/3, E.W3/5 E.U7, E.U13, E.U14, E.U16, E.U17, E.U25	SEMINARS: 1) Cystic fibrosis and tuberculosis in children 2) Atopic dermatitis. Hives 3) Gastroesophageal reflux disease. Esophageal achalasia 4) Feeding disorders in children 5) Anaphylaxis. Hymenoptera venom allergy 6) Foreign bodies in the gastrointestinal tract and chemical burns of the esophagus 7) Principles of performing and interpreting selected respiratory function tests 8) Principles of enteral and parenteral nutrition in children
E.U2, E.U4, E.U7, E.U9, E.U12, E.U13, E.U16, E.U18, E.U.24, E.U25, E.U29/3, E.U30/7, E.U30/8, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES (hospital ward and specialist clinic): 1) Diagnosis of allergic diseases. Food challenge tests 2) Elimination diets – indications for the use of milk replacers 3) Abdominal pain 4) Vomiting 5) Constipation 6) Hypertransaminasemia 7) Chronic diarrhoea 8) Upper gastrointestinal bleeding 9) Lower gastrointestinal bleeding 10) Principles of performing and interpreting selected gastrointestinal function tests Department of Paediatrics, Oncology and Haematology – Year V:
Department of Paediatrics, Oncology and Haematology - Year IV:	
E.W1, E.W2, E.W3/4, E.W6, E.W34	LECTURES: 1-2) Childhood anaemias: A. deficiency anaemias B. haemolytic anaemias and bone marrow failure states 3) Bleeding disorders in children: thrombocytopenic, plasmacytopenic, vascular anaemias 4) Leukaemia in children 5) Hodgkin's and non-Hodgkin's lymphomas in children 6-9) Solid tumours in children: 6-7) neuroblastoma, hepatoblastoma, gonadal tumours 8-9) central nervous system tumours, bone tumours, soft tissue sarcomas

	10) Long-term effects of anticancer treatment in children
E.W1, E.W2, E.W3/4, E.W6, E.W34 E.U2, E.U4, E.U7, E.U10, E.U12, E.U14, E.U16, E.U17, E.U18, E.U21, E.U24, E.U27	SEMINARS: 1) Symptomatology of paediatric cancer 2) Epidemiology of paediatric cancer 3) Emergencies in paediatric oncology 4) Early complications of anticancer treatment in children 5) Practical principles of treating anaemia in children 6) Causes of hypercoagulability in children 7) Leukopenia and neutropenia: causes, diagnosis, and therapy
E.U2, E.U4, E.U7, E.U9, E.U10, E.U11, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U21, E.U24, E.U25, E.U27, E.U29/5, E.U30/1, E.U30/6, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: 1) Organization of the paediatric oncology and haematology department (including day care and isolation of patients with neutropenia) 2) Physical examination and history taking in paediatric oncology and haematology: when is cancer suspected? 3) Interpretation of laboratory and imaging tests for specific paediatric cancers and blood disorders 4) Differential diagnosis in paediatric oncology 5) Principles of anti-cancer therapy and supportive care 6) Observation and care of the child during and after anti-cancer treatment 7) Outpatient care for the child during anti-cancer treatment 8) Analysis of the diagnostic and therapeutic process for patients hospitalized in the clinic due to cancer and haematological diseases 9) Interviewing parents and patients and performing a physical examination of patients hospitalized in the clinic 10) Monitoring health status after childhood cancer treatment 11) Principles of care for children with haemophilia (1 hour).
Department of Paediatrics and Nephrology - year VI	
E.W1, E.W2, E.W3/6 E.U2, E.U4, E.U7, E.U9, E.U10, E.U12, E.U13, E.U16, E.U24, E.U29/1, E.U29/2, E.U29/7, E.U30/6, E.U32, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: 1) Discussion of the pathogenesis, epidemiology, clinical symptoms, and diagnostic and therapeutic procedures for urinary tract infections and the most common voiding disorders in children (primary nocturnal enuresis, secondary voiding disorders, neurogenic bladder, and overactive bladder). Introduction to the principles of urodynamic testing, urethral flow testing, and urotherapy. 2) Discussion on the standard diagnostic and therapeutic procedures for children with haematuria and proteinuria in the course of glomerulonephritis, nephrotic syndrome, and genetically determined conditions — analysis of medical records of patients under the care of the Nephrology Clinic and Outpatient Clinic, discussion of basic principles of case reporting and publishing results in scientific papers, examination of patients present in the department, writing an epicrisis, and determining further patient management. 3) Discussion of the standard diagnostic and therapeutic procedures for children with renal arterial hypertension and renovascular hypertension — analysis of medical records of patients under the care of the Nephrology Clinic and Outpatient Clinic, examination of patients present in the ward, analysis of Holter monitoring. 4) Discussion of the standard diagnostic and therapeutic procedures for children with acute renal failure and chronic kidney disease based on medical records of patients under the care of the Nephrology Clinic and Outpatient Clinic, examination of patients present in the ward, familiarization with the operation of paediatric dialysis centres and the principles of peritoneal dialysis and haemodialysis. 5) Application of diagnostic tests in nephrology. A detailed discussion of laboratory and radiological tests applicable in nephrology (interpretation of urinalysis, urine culture, peripheral blood count, renal function tests, inflammatory parameters, ultrasound, radiological, scintigraphic, and pathological tests in nephrological diagnostics). Application of ultrasound in nephrology. Discussion of the diagnostic and therapeutic procedures for urolithiasis and renal colic in children — classes held at the Paediatric Trauma Centre. 6) Discussion of the procedures for managing paediatric trauma patients at the Paediatric Trauma Centre, management of acute poisoning in children, management of selected emergencies in children (cardiac arrest, respiratory failure, seizures, shock) — classes held at the Paediatric Trauma

	Centre Emergency Department in the afternoon (on-call hours).
E.W1, E.W3/2,6, E.W37 E.U9, E.U18, E.U24	PRACTICAL CLINICAL PROBLEM SOLVING: 1) Urinary tract infections, voiding disorders in children 2) Proteinuria, haematuria — differential diagnosis 3) Patient with hypertension 4) Elevated creatinine levels — what next? 5) Solving and discussing sample paediatric questions from the Final Medical Examination
Department of Paediatrics, Endocrinology, Diabetology with Cardiology Divisions — year VI:	
E.W1, E.W2, E.W3/2, E.W3/7, E.W6, E.W37 E.U2, E.U4, E.U7, E.U9, E.U10, E.U11, E.U12, E.U13, E.U14, E.U16, E.U17, E.U18, E.U24, E.U29/1, E.U29/2, E.U29/8, E.U29/9, E.U32, E.U33, E.U38 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES: 1) Endocrinology. Disorders of Gender Differentiation. What should a doctor know after graduation? (6.25 hours). 2) Diabetology. Practical application of knowledge regarding the course of type 1 diabetes, therapy with insulin pens and personal pumps, and the treatment of acute conditions in paediatric diabetes: Independent development of: a) a follow-up examination plan, b) modification of insulin therapy, c) treatment of ketoacidosis and hypoglycaemia 3) Cardiology. A child with loss of consciousness — causes and treatment. Cardiological diagnosis of disorders of consciousness 4) Cardiology. Heart failure in children. Causes, symptoms, and treatment. Clinical case studies
E.W1, E.W3/2,7, E.W6 E.U4, E.U7, E.U24	PRACTICAL CLINICAL PROBLEM SOLVING: 1) Secondary causes of hypertension in developmental age 2) From hyperglycaemia to correct diagnosis. Differential diagnosis of diabetes in children. 3) ECG — physiology and pathology in children and adolescents 4) Paediatric cardiology through case studies
Department of Paediatrics, Gastroenterology, Hepatology, Nutrition, Allergology, and Pulmonology - year VI:	
E.U2, E.U4, E.U7, E.U12, E.U14, E.U16, E.U18, E.U17, E.U21, E.U24, E.U25, E.U32, E.U38 K1, K2, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES (hospital ward and specialist clinic): 1) Drug allergy, cross-allergy, and contact allergy. Malnutrition in allergic diseases. 2) Endoscopic examinations in children - indications, contraindications, types of examinations, and procedures. Celiac disease. Other gluten-related diseases. 3) Bronchial asthma. 4) Crohn's disease. Ulcerative colitis. Malnutrition in gastrointestinal diseases. 5) Jaundice, cholestasis. Malnutrition in liver diseases.
E.W1, E.W2, E.W3/3.5 E.U12, E.U18, E.U24, E.U25	PRACTICAL CLINICAL PROBLEM SOLVING: 1) Management of a patient with hypertransaminasemia 2) Management of a patient with abdominal pain and vomiting 3) Hereditary angioedema in an infant. Protein-losing enteropathy 4) Management of a patient with abdominal pain and lower gastrointestinal bleeding 5) Status asthmaticus
Department of Paediatric Infectious Diseases — year VI	
E.W1, E.W3/9, E.W6, E.W34 E.U7, E.U12, E.U16, E.U17, E.U24	PRACTICAL CLINICAL PROBLEM SOLVING: 1) Skin rash in a child — differential diagnosis 2) Child with fever — differential diagnosis 3) Congenital diseases: cytomegalovirus and toxoplasmosis
Department of Neonatology and Newborn Intensive Care - Year VI:	

E.W1, EW2, E.W6, E.W34 E.U4, E.U8, E.U9, E.U12, E.U13, E.U14	SEMINARS: 1) The most common problems in the neonatal period after hospital discharge (lactose intolerance, infant colic, gastroesophageal reflux). Care for premature infants discharged home. Neonatal jaundice
E.W1, EW2, E.W3/2, E.W6, E.W34 E.U2, E.U4, E.U7, E.U8, E.U9, E.U12, E.U13, E.U14, E.U16, E.U24 K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11	PRACTICAL CLASSES 1) Medical history and physical examination of a full-term newborn, analysis of laboratory and imaging test results, differential diagnosis, and treatment recommendations. Discussion, taking into account environmental and epidemiological conditions, abnormalities in the medical history and test results, analysis of laboratory and imaging test results, and differential diagnosis of therapeutic procedures for the following conditions: a newborn born to a mother with diabetes, thyroid dysfunction, systemic lupus erythematosus, a newborn born to a mother abusing substances, alcohol, or nicotine, a newborn with congenital infection and infection during the neonatal period, a newborn with hypotrophy, a newborn with seizures, and a newborn with craniofacial and gastrointestinal defects. 2) Medical history and physical examination of a premature newborn, analysis of laboratory and imaging test results, differential diagnosis, and treatment recommendations. Discussion, taking into account environmental and epidemiological conditions, deviations in the physical examination and history, analysis of laboratory and imaging test results, differential diagnosis, and therapeutic management of the following problems: newborns born with asphyxia, including resuscitation, premature newborns, and newborns with respiratory disorders.
Department of Medical Simulations — Year VI:	
E.W3, E.W6 E.U2, E.U4, E.U7, E.U12, E.U14, E.U15, E.U16, E.U17, E.U18, E.U24, E.U29, E.U32, E.U38	PRACTICAL CLASSES: 1) Respiratory disorders in infants and young children, bronchial asthma 2) Cardiac arrhythmias in children 3) Fever and seizures, sepsis, septic shock in children 4) Heart defects in newborns 5) Water-electrolyte and acid-base disturbances in newborns and infants 6) Congenital metabolic defects 7) Cerebral edema Exercises are based on participation in a high-fidelity simulation scenario using simulators, with students acting as members of a multidisciplinary team caring for the patient. After completing the scenario, students and the instructor discuss the procedure and draw educational conclusions. Each exercise consists of a test of student knowledge, followed by implementation of the scenario, and a discussion.
Basic literature	
Lissauer, Carroll: <i>Pediatrics</i> , wydanie 6 (red. wydania polskiego: T. Jackowska, A. Wrotek), Edra, Urban & Partner 2023	
Supplementary literature	
Wanda Kawalec, Ryszard Grenda, Marek Kulus, <i>Pediatrics</i> Tom 1-2, PZWL 2024 (selected chapters)	

Criteria for assessing the achieved learning outcomes and the form and conditions for obtaining course credit:

The condition for obtaining course credit is:

YEARS III-V

- Attendance at all classes conducted in-person and online (classes, seminars, lectures). One excused absence per semester (sick leave or dean's leave) is permitted from classes: classes, seminars, in each unit conducting classes, without the need to make up the missed classes. A larger number of excused absences from classes always require making up the missed classes with another group (or in another manner determined by the unit head or their designee) no later than the end of the semester. Obtaining a credit for the classes in a form determined by the unit head (e.g., oral, written, test).
- Obtaining class credits in the form agreed by the didactic unit head (i.e. oral credit, written credit, test). If a paediatrics course is offered in multiple units in a given year, passing the course requires passing all units. A student who has not passed all required courses will not be allowed to sit the exam session.

YEAR VI

- Attendance at all classes, both in-person and online (exercises, practical clinical problem-solving). One excused absence per semester (sick leave or dean's leave) is permitted from classes (practical/practical clinical problem-solving) in each unit conducting the classes, without the need to make up the class. A larger number of excused absences from classes always require making up the class with a different group (or in another manner determined by the head of the unit or their designee).

Principles for the Paediatrics Examination:

A. Preliminary Arrangements

- The sixth-year paediatrics examination will consist of a written test and an oral examination, incorporating elements of practical teaching.

2. Examination dates (basic and two retakes) are set by the unit in consultation with the student representative. One additional date may be set for all students who excused their absence from any of the previous dates. Principles of conducting The paediatrics exam during the VI year will be conducted in the form of test and oral exam encompassing practical teaching elements. Such a term will be held in September (no later than on 15 September). No additional terms of exams to the established ones as per the above rule shall be scheduled.
3. Recommended textbooks are included in the course syllabus.
4. Exemptions from the exam are not permitted.

B. Test Exam

1. The test exam consists of 100 questions. The test questions cover all paediatric disciplines, consistent with the paediatric syllabus for years 2-6; at least 25% will be practical questions (e.g., analysis of laboratory, radiological, and ECG test results). The exam duration will depend on the length of the questions.
2. The test must be completed independently. The consequences of contact with other people during the test exam, as well as any form of using unauthorized assistance, are specified in sections 11-14 of these Regulations.
3. Question sets are prepared to ensure objectivity and are arranged so that candidates sitting next to each other have a different order of questions.
4. The test exam result is considered positive if the candidate provides at least 60% of correct answers. Obtaining fewer points is equivalent to failing the entire exam, i.e., receiving a failing grade on the first attempt.
5. The test exam results are published on the website of the clinic organizing the exam no later than three business days after the exam date, in compliance with applicable personal data protection regulations.
6. The scoring and grading scale for the test exam are based on the following criteria:
7. <60% - unsatisfactory grade (2)
8. 60.00 - 67.99% - satisfactory grade (3)
9. 68.00 - 74.99% - satisfactory good grade (3.5)
10. 75.00 - 81.99% - good grade (4)
11. 82.00 - 89.99% - good plus grade (4.5)
12. 90.00-100% - very good grade (5).
13. Comments on test questions may only be submitted in writing, immediately after completing the test, on the designated form and before leaving the examination room. If the objection is upheld, the question in question will be omitted from the examination results for all candidates, which will reduce the number of points available.
14. Students have the right to review their test results (answer sheet and question booklet) only once. Deadlines for reviewing the test papers will be announced to students by the clinic administering the test examination after the test examination results are announced.
15. Obtaining a failing grade will result in the student being disqualified from taking the oral exam.
16. Failure to report for the exam/make-up exam without an excuse will result in receiving a failing grade.
17. The rules for excusing absences from the exam and make-up exams are specified in the Academic Regulations.

C. Oral Exam

1. The oral exam will be administered in all units teaching the subject of paediatrics.
2. The dates of the oral exam will be determined by the heads of individual units; the exam will take place no later than three weeks after the test date. The number of students who will take the oral exam on the designated dates will be determined by the head of the teaching unit.
3. The student will be assigned to the teaching unit where they will take the exam through a drawing organized by the Department of Paediatrics and Nephrology, Medical University of Białystok. The drawing will take place within two business days of the announcement of the test exam results.
4. The oral exam will consist of three questions covering practical aspects of paediatrics teaching.
5. The final grade for the paediatrics exam will be the arithmetic mean of the final test and oral exam grades.

D. Re-take exam

1. If a student receives a failing grade on the oral exam, they are entitled to two retakes.
2. If they receive a failing grade on the oral exam, they are entitled to a retake only if they have not yet used the retake date for the test exam. The date for the retake exam will be set by the examiner.
3. Each retake exam will be conducted in the same format as the first exam.
4. In matters not regulated by these Regulations, the provisions of the Regulations for First-cycle, Second-cycle, and Long-cycle Master's Studies at the Medical University of Białystok apply.

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 (date and signature of the head of the department conducting the classes or the course coordinator)