



Pomeranian Medical University in Szczecin

SYLLABUS of the MODULE (SUBJECT)

General Information

Code	Title	Paediatrics
Module type		<i>Obligatory</i>
Faculty		<i>Faculty of Medicine (WL)</i>
Field of study		<i>medicine (KL)</i>
Major		<i>Not applicable</i>
Level of study		<i>II level/ long-cycle (2J)</i>
Mode of study		<i>intramural</i>
Year of study		<i>III, IV, V</i>
Semester		<i>III - summer semester IV, V - Block system</i>
ECTS points		<i>III – 4 IV – 4 V - 6</i>
Types of training		<i>III – seminars 15h; practical - 30h (45 hrs in total) IV – seminars 40h; practical – 70h (110 hrs in total) V – seminars 35h; practical – 65h (100 hrs in total)</i>
Tutor responsible for the module		Prof. dr hab. n. med. Tomasz Urański urasin@pum.edu.pl
Tutors conducting the subject		prof. dr hab. med. Tomasz Urański prof. dr hab. med. Mieczysław Walczak prof. dr hab. med. Jarosław Peregud-Pogorzelski dr hab. med. Maria Giżewska dr hab. med. Andrzej Brodkiewicz dr hab. med. Elżbieta Petriczko dr hab. med. Barbara Garanty-Bogacka dr med. Tomasz Ociepa dr med. Elżbieta Kamińska dr med. Paulina Dworak dr med. Anita Horodnicka-Józwa dr med. Małgorzata Syrenicz dr med. Joanna Gorol dr med. Paula Kurzawa dr med. Beata Krupa
WWW		www.pum.edu.pl
Language		Polish, English

Detailed information

Module objectives		<p>1. to remind and complete the knowledge of the introduction to clinical medicine</p> <p>2. to help student to accumulate clinical thinking skills for diagnostic procedures, conduct a proper differential diagnosis and appropriate treatment of childhood diseases presented in the curriculum of III, IV and V year of the Faculty of Medicine</p> <p>3. to teach students the manner of implementing prophylactic measures for diseases that occur in childhood</p> <p>4. to develop ethical attitude and skills helpful to deal with a sick child, to develop skills for dealing with parents / guardians of a sick child</p>
Prerequisite /essential requirements	Knowledge	<i>The knowledge accumulated during the first two years of study at the Faculty of Medicine, in particular anatomy, embryology, histology, biochemistry, physiology, introduction to clinical medicine, pathology and pharmacology.</i>
	Skills	<i>Critical reading of literature, including web resources. Good preparation of library services</i>
	Competences	<i>The habit of self-education, ability to work in team, interpersonal communication skills, the ability of responsible usage of emotional intelligence</i>

Description of the learning outcomes for the subject /module			
Number of learning outcome	Student, who has passed the (subject) Knows /is able to /can:	SYMBOL (referring the standards) EKK	Method of verification of learning outcomes
KL2JPW01	knows genetic, environmental and epidemiological predispositions of most frequent diseases	K_E.W1	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW02	knows the principles of nutrition in healthy and sick children, the principles of vaccination and evaluation of a child's development	K_E.W2	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW03	<p>knows and understands causes, symptoms, principles of diagnosis and treatment of most common conditions of childhood:</p> <p>a) rickets, tetany, seizures,</p> <p>b) congenital heart diseases, myo- and endo- and pericarditis, , cardiomyopathy, cardiac arrhythmia, arterial hypertension, syncope ,</p> <p>c) acute and chronic upper and lower respiratory tract diseases, congenital malformations of respiratory tract, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, angioneurotic edema,</p> <p>d) anemia, purpura, bone marrow failure, cancer in children,</p> <p>e) acute and chronic abdominal pain, vomiting, diarrhea, constipation,</p>	K_E.W3	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam

	gastrointestinal bleeding, chronic peptic ulcer, non-specific enteropathy, chronic liver disease, cholestasis and other acquired and congenital diseases of alimentary tract, f) urinary tract infection, congenital malformations of urinary tract, nephrotic syndrome, nephrolithiasis, acute and chronic renal failure, acute and chronic pyelo- and glomerulonephritis, renal manifestation of systemic conditions, dysuria, vesicoureteral reflux, g) growth disorders, diseases of thyroid and parathyroid glands, conditions of adrenal glands, diabetes, obesity and abnormal puberty and gonadal dysfunction h) infantile cerebral palsy, meningoencephalitis, epilepsy, i) most common infectious diseases j) genetic syndromes, k) connective tissue diseases, rheumatic fever, juvenile arthritis, systemic lupus, dermatomyositis		
KL2JPW04	knows the following issues: an abused child, mental impairment, behavioral disorders: psychosis, addiction, abnormal alimentation and defecation in children	K_E.W4	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW05	knows the principles of intrauterine diagnosis and treatment	K_E.W5	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW06	knows most common life-threatening conditions in children and and principles of it's management	K_E.W6	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW07	Knows the nature of psychosomal disorders and their management in children, adolescents and elderly people	K_E.W19	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW08	knows environmental and epidemiologic factors predisposing to cancer in humans	K_E.W23	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW09	knows principles of early detection of cancer and principles of cancer screening	K_E.W24	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW10	knows the potential of contemporary oncology (incl. of multimodal therapy), perspectives of gene and cellular therapy well as their adverse consequences	K_E.W25	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW11	knows the rules of combined therapy in oncology, algorithms of diagnosis and management of most common forms of cancer in humans	K_E.W26	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW12	knows causes and management of most common problems in palliative medicine, incl.: a) management of most common somatic signs, b) prevention and management of cancerous cachexia and decubitus ulcer c) most common life-threatening conditions in palliative medicine	K_E.W27	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW13	knows principles of pain management , incl. chronic and cancer-related pain	K_E.W29	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and

			practical exam
KL2JPW14	knows and understands the concepts of disability	K_E.W30	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW15	knows the importance of medical rehabilitation and the methods applied	K_E.W31	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW16	knows and understands causes, symptoms and management of most common bacterial, viral, parasitic conditions and mycosis, incl. pneumococcal infection, viral hepatitis, AIDS, sepsis and nosocomial infection	K_E.W32	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW17	knows and understands causes, symptoms and management of most common hereditary disorders	K_E.W35	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPW18	knows specimens and principles of diagnostic sampling in humans	K_E.W37	Continuous assessment during seminars and classes;
KL2JPW19	knows and understands possibilities and limitations of laboratory tests in emergency conditions	K_E.W39	Continuous assessment during seminars and classes;
KL2JPU01	takes history of child and its family	K_E.U2	verifying of practical skills
KL2JPU02	carries out physical examination of a child	K_E.U4	verifying of practical skills
KL2JPU03	carries out preliminary examination of hearing and visual field as well as otoscopic examination	K_E.U6	verifying of practical skills
KL2JPU04	arise out evaluation of patient's general condition, consciousness and awareness	K_E.U7	verifying of practical skills
KL2JPU05	carries out evaluation of a newborn according to Apgar scale and its maturity, can examine newborn's reflexes	K_E.U8	verifying of practical skills
KL2JPU06	compares anthropometric and blood pressure with normal values data on centile charts	K_E.U9	verifying of practical skills
KL2JPU07	carries out evaluation of sexual maturation status	K_E.U10	verifying of practical skills
KL2JPU08	carries out evaluation of growth and development of a child	K_E.U11	verifying of practical skills
KL2JPU09	carries out differential diagnosis of most common conditions in adults and children	K_E.U12	Continuous assessment during seminars and classes; Credit in the end of the block; Final exam – written test and practical exam
KL2JPU10	evaluates and describes somatic and mental state of patient	K_E.U13	verifying of practical skills
KL2JPU11	can make a diagnosis of the most common life-threatening conditions	K_E.U14	verifying of practical skills
KL2JPU12	can make a diagnosis of alcohol abuse, drug and other stimulants intoxication	K_E.U15	verifying of practical skills
KL2JPU13	can make plans of diagnostic, therapeutic and preventive procedures	K_E.U16	verifying of practical skills
KL2JPU14	analyzes possible adverse effects of certain drugs and interaction between them	K_E.U17	verifying of practical skills
KL2JPU15	suggests individualization of applicable therapeutic guidelines and other treatment methods because of ineffectiveness or contraindications with regard to standard treatment	K_E.U18	verifying of practical skills
KL2JPU16	can recognize symptoms of drug-addiction and suggests therapeutic management	K_E.U19	verifying of practical skills
KL2JPU17	can make a decision of hospital admission or home treatment	K_E.U20	verifying of practical skills
KL2JPU18	can define states in which recommended	K_E.U21	verifying of practical skills

	treatment is limited by life expectancy, functional state or preferences of patient		
KL2JPU19	evaluates functionality of disabled patient	K_E.U22	verifying of practical skills
KL2JPU20	can suggest rehabilitation scheme in most frequent diseases	K_E.U23	verifying of practical skills
KL2JPU21	interprets laboratory studies and identifies causes of abnormal values	K_E.U24	egzamin- rozwiązywanie problemu, sprawdzanie umiejętności praktycznych
KL2JPU22	applies nutritional treatment (inc. parenteral and enteral nutrition)	K_E.U25	verifying of practical skills
KL2JPU23	can set the management in case of exposure to blood borne infection	K_E.U26	verifying of practical skills
KL2JPU24	knows indication and contraindications for	K_E.U27	egzamin- rozwiązywanie problemu, sprawdzanie umiejętności praktycznych
KL2JPU25	can sample specimens for laboratory studies	K_E.U28	verifying of practical skills
KL2JPU26	performs basic procedures and maneuvers incl.: a) body temperature measurement, sphygmometry, blood pressure measurement, b) monitoring life parameters by means of cardiomonitor, pulseoxymetry, c) spirometry, oxygen therapy, supported and mechanical ventilation d) introduction of mouth-throat tube, e) intravenous, intramuscular and subcutaneous injections, cannulation of peripheral veins, sampling peripheral venous blood, sampling urine culture, sampling arterial and arterialized capillary blood, f) nose, throat and skin swabs, pleural cavity puncture , g) urinary bladder catheterization in women and men, passage of gastric tube into stomach, gastric lavage, enema h) standard resting electrocardiogram c/w interpretation, electrical cardioversion and defibrillation i) simple strip tests and glucose concentration measurement	K_E.U29	verifying of practical skills
KL2JPU27	assists with performing following procedures and operations: a) transfusion of blood products b) pleural cavity drainage c) cardiac sac puncture, d) peritoneal cavity puncture , e) lumbar puncture, f) fine-needle biopsy, g) epidermal tests, h) intradermal and scarification tests, and interprets results	K_E.U30	verifying of practical skills
KL2JPU28	interprets pharmaceutical specifications of drugs and reviews ads regarding drugs	K_E.U31	verifying of practical skills
KL2JPU29	plans specialist's consultation	K_E.U32	verifying of practical skills
KL2JPU30	implements basic treatment in acute poisoning	K_E.U33	verifying of practical skills
KL2JPU31	monitors status of a patient poisoned with chemicals or drugs	K_E.U34	verifying of practical skills
KL2JPU32	evaluates decubitus ulcer and applies proper dressing	K_E.U35	verifying of practical skills
KL2JPU33	recognizes agony and states death	K_E.U37	verifying of practical skills
KL2JPU34	keeps medical documentation	K_E.U38	verifying of practical skills

KL2JPK01	pays respect for patients/customers/social groups with care for their own good	K_K20	verifying of practical skills
KL2JPK02	can solve most common problems concerning medical practice	K_K12	verifying of practical skills
KL2JPK03	can form opinions on different aspects of professional activity	K_K06	verifying of practical skills
KL2JPK04	co-operates with team members; can co-operate within group taking different roles	K_K04	verifying of practical skills
KL2JPK05	pays attention to prestige concerning medical practice	K_K13	verifying of practical skills

Matrix presenting the learning outcomes of the subject/module in relation to the form of classes

Number of learning outcome	Student, who has passed the (subject) Knows /is able to /can:	Types of training							
		Lecture	Seminar	Laboratory classes	Project work	Clinical classes	Classes	Practical classes	Other
KL2JPW01			X			X			
KL2JPW02	knows the principles of nutrition in		X			X			
KL2JPW03	knows and understands causes,		X			X			
KL2JPW04	knows the following issues: an abused		X			X			
KL2JPW05	knows the principles of intrauterine		X						
KL2JPW06	knows most common life-threatening		X			X			
KL2JPW07	Knows the nature of psychosoma		X						
KL2JPW08	knows environmental and		X						
KL2JPW09	knows principles of early detection of		X			X			
KL2JPW10	knows the potential of contemporary		X			X			
KL2JPW11	knows the rules of combined therapy		X			X			
KL2JPW12	knows causes and management of					X			
KL2JPW13	knows principles of pain management					X			
KL2JPW14	knows and understands the concepts		X			X			
KL2JPW15	Knows the importance of medical		X			X			
KL2JPW16	knows and understands causes,		X			X			
KL2JPW17	knows and understands causes,		X			X			
KL2JPW18	knows specimens and principles of		X			X			
KL2JPW19	knows and understands possibilities		X			X			
KL2JPU01	takes history of child and its family		X			X			
KL2JPU02	carries out physical examination of a		X			X			
KL2JPU03	carries out preliminary examination of		X			X			
KL2JPU04	arise out evaluation of patient's		X			X			
KL2JPU05	carries out evaluation of a newborn		X			X			
KL2JPU06	compares anthropometric and blood		X			X			
KL2JPU07	Carries out evaluation of sexual		X			X			
KL2JPU08	carries out evaluation of growth and		X			X			
KL2JPU09	Carries out differential diagnosis of		X			X			
KL2JPU10	evaluates and describes somatic and		X			X			
KL2JPU11	can make a diagnosis of the most		X			X			
KL2JPU12	Can make a diagnosis of alcohol		X			X			
KL2JPU13	Can make plans of diagnostic,		X			X			
KL2JPU14	analyzes possible adverse effects of		X			X			
KL2JPU15	suggests individualization of		X			X			
KL2JPU16	can recognize symptoms of drug-		X			X			
KL2JPU17	can make a decision of hospital		X			X			
KL2JPU18	can define states in which		X			X			

KL2JPU19	evaluates functionality of disabled					X			
KL2JPU20	can suggest rehabilitation scheme in		X			X			
KL2JPU21	interprets laboratory studies and		X			X			
KL2JPU22	applies nutritional treatment (inc.		X			X			
KL2JPU23	can set the management in case of		X			X			
KL2JPU24	knows indication and		X			X			
KL2JPU25	can sample specimens for laboratory		X			X			
KL2JPU26	performs basic		X			X			
KL2JPU27	assists with performing following					X			
KL2JPU28	interprets pharmaceutical		X			X			
KL2JPU29	plans specialist's consultation		X			X			
KL2JPU30	implements basic treatment in acute		X			X			
KL2JPU31	monitors status of a patient poisoned		X			X			
KL2JPU32	evaluates decubitus ulcer and applies		X			X			
KL2JPU33	recognizes agony and states death		X			X			
KL2JPU34	keeps medical documentation		X			X			
KL2JPK01	pays respect for		X			X			
KL2JPK02	can solve most common problems		X			X			
KL2JPK03	can form opinions on different		X			X			
KL2JPK04	co-operates with team members; can		X			X			
KL2JPK05	pays attention to prestige concerning		X			X			

Module (subject) contents		
Symbol of teaching programme	Content of teaching programme	References to learning outcomes
III year		
TK_01	Intrauterine development. Physiology of the neonatal period	K_E.W5 K_E.U4; 8;11
TK_02	Physiology of growth and development. Psychomotoric development of a child. Physiology and pathology of puberty	K_E.W3;35 K_E.U2; 9; 10; 11; 13;18; K_K.20
TK_03	Development and differences in anatomy and physiology of respiratory tract in children	K_E.W3 K_E.U2; 4; 7; 28
TK_04	Development and differences in anatomy and physiology of cardiovascular system in children	K_E.W3; K_E.U2; 4; 7; 28
TK_05	Development and differences in anatomy and physiology of urinary tract in children	K_E.W3; K_E.U2; 4; 7; 28
TK_06	Ontogenetic development of the nervous system	K_E.W3; K_E.U2; 4;6; 7; 28
TK_07	Ontogenetic development of the hematopoietic system. Differences of hematopoietic system in children and hematological normal values	K_E.W3; K_E.U2; 4; 24; 28
TK_08	Ontogenetic development and differences in anatomy and physiology of gastrointestinal tract in children. Principles of nutrition of a sick and healthy child. Breast and formula feeding in infancy.	K_E.W2; 3 K_E.U2; 4; 6; 7; 25; 28
TK_09	An abused child	K_E.W4 K_E.U2;4;6;7 K_K20
TK_10	Physical examination in pediatrics. Methods for evaluation of physical and psycho-motoric development of a child.	K_E.U3; 4; 6; 7; 8; 9
TK_11	Ontogenetic development and differences of immune system in children. Vaccinations.	K_W.32; 37 K_E.U 16; 27
TK_12	Conditions of the neonatal period	K_E.W 6; 9; 20;

		K_E.U12; 24; 29
	IV year	
TK_13	Sudden infant death syndrome	K_E.W3; 6; 35 K_E.U12; 24; 29; K_K20
TK_14	Infectious diseases of childhood	K_E.W1; 3; 6; 19; 21; 22 K_E.U 2; 4; 6; 7; 12; 13; 14; 16; 18; 20; 24; 26
TK_15	Calcium – phosphate imbalance in children	K_E.1; 3; 6; 20; 21; 22 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38
TK_16	Conditions of cardiovascular system in children	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 38
TK_17	Metabolic diseases in children	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38; K_K20
TK_18	Conditions of the nervous system in children	K_E.W1; 3; 6; 19; 35; 37; 39; K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38 K_K20
TK_19	Hormonal disorders	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 38
TK_20	Growth disorders	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38 K_K20; 06
	V year	
TK_21	Conditions of gastrointestinal tract in children	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38 K_K20
TK_22	Cancer in children	K_E.W1; 23; 24; 25; 26; 27; 29; 30; 31 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38 K_K06
TK_23	Blood disorders in children	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38
TK_24	Pediatric emergency	K_E.W6; 19; 37; 39 K_E.U2; 4; 6; 7; 13; 14; 15; 16; 17; 19; 20; 24; 28; 29; 31; 32; 33; 34; 37; 38 K_K13
TK_25	Conditions of the urinary tract in children	K_E.W1; 2; 3; 6; 23; 35; 37; 39 K_E.U2; 4; 6; 7; 14; 16; 17; 18; 24; 25; 28; 29; 30; 32; 38 K_K06
TK_26	Immunodeficiency and immune disorders in children	K_E.W1; 2; 3; 6; 35; 37; 39 K_E.U2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38 K_K06
TK_27	Conditions of respiratory tract in children	K_E.W1; 3; 6; 35; 37; 39 K_E.U 2; 4; 7; 12; 13; 14; 16; 17; 18; 20; 24; 28; 29; 32; 38
TK_28	Genetic disorders	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 6; 7; 12; 22; 23; 24; 25; 28; 29; 32; 38

		K_K12; 06		
TK_29	Basic conditions of childhood in general practice (GP)	K_E.W1; 3; 6; 35; 37; 39 K_E.U2; 4; 6; 7; 14; 15; 16; 17; 23; 28; 29; 30; 38		
TK_30	Chronically and terminally sick child	K_E.W1; 2; 3; 27; 29; 30; 31; 37; 38 K_E.U2; 4; 6; 7; 21; 22; 23; 24; 25; 28; 29; 30; 32; 37; 38 K_K20; 12; 04		
References and educational resources				
1. Tom Lissauer, Graham Clayden. <i>Pediatrics</i> . Elsevier Urban & Partner. Wrocław 2009.				
2. K.J. Marcante, R.M. Kliegman, H.B. Jenson, R.E. Behrman. <i>Nelson Pediatrics Tom 1</i> . Urban & Partner. Wrocław 2012.				
3. Tom Lissauer, Graham Clayden. <i>Illustrated Textbook of Paediatrics</i> , 4th Edition. Mosby, 2012.				
4. W.W. Hay, MJ Levin, JM Sondheimer, RR Deterding. <i>Current Diagnosis and Treatment in Pediatrics</i> , 23rd Edition. McGraw Hill, 2014. http://accesspediatrics.mhmedical.com/book.aspx?bookid=1795				
EDUCATIONAL PLATFORM: Access Pediatrics http://accesspediatrics.mhmedical.com/index.aspx				
Form of student’s activity (in-class participation; activeness, produce a report, etc.)		Workload [h]		
		Tutor	Student	Average
activities that require direct participation of tutors		255	255	
Preparation to the classes		70	140	
Reading of the indicated/specified literature		100	50	
Report writing/project making		0	0	
Time spent to prepare for the exam		50	140	
Other				
Student’s workload in total			585	
ECTS points for the subject		16		
Remarks at the end				

Methods of assessment, for example:

E – exam- problem resolving

S – verifying of practical skills

R – report

D – discussion

P – presentation

Others-