Załącznik nr 5 do zarządzenia nr 189/2025

COURSE SPECIFICATION

Course code: 0912-7LEK-C6.3-P
Course title in Polish: Chirurgia dziecięca
Course title in English: Pediatric surgery

1. Placement of the course within the study programme

1.1. Field of study	Medical
1.2. Mode of study	Full-time
1.3. Level of study	Uniform Master's studies
1.4. Profile of study	General academic
1.5. Course specification author	dr n. med. Przemysław Wolak
1.6. Contact	przemyslaw.wolak@ujk.edu.pl

2. Generał characteristics of the course

2.1. Language of instruction	English
2.2. Entry requirements	Anatomy, Physiology, Surgery, Pediatrics

3. Detailed characteristics of the course

3.1. Type of classes	LECTURE: 10 (including 6 h of e-learning) CLASSES: 15, PRACTICAL CLASSES: 25
3.2. Place of course delivery	Lectures –Collegium Medicum UJK or online Clinical classes - Department of Pediatric Surgery, Urology and Traumatology, Regional Hospital in Kielce
3.3. Form of assessment	LECTURE – E, CLASSES and PRACTICAL CLASSES – Zo/ Lectures are mandatory in accordance with Chapter III, §7, subsection 3, point 2.
3.4. **Teaching methods**	lectures, discussion, case study
3.5.a. Basic reading list	1. Pediatric Surgery 7th Edition; A. Coran; 2012 2. Holcomb and Ashcraft's Pediatric Surgery 7th Edition, G.W. Holcomb, J.P. Murphy, S.D. St. Peter, J.M. Gatti, 2020
3.5.b. Supplementary reading list	1. Nelson Textbook of Pediatrics 21st Edition, R.M. Kliegman, J.W. St Geme, N.J. Blum, S.S. Shah, R.C. Tasker, K.M. Wilson; 2020

4. Objectives, content and learning outcomes

4.1. Course objectives (taking into account the form of classes)

Lectures
C1 Knows the differences and details of surgical disorders in children and adolescents
C2 Propose differential diagnosis, plan diagnostic workup and interpret results evaluating a child with surgical disorders
C3 Establishes and maintains a deep and respectful contact with the patient

4.2. Detailed syllabus

Lectures
Specificity of Pediatric Surgery (disorders, congenital disorders, treatment, differences is anatomy and physiology)
2. History of Pediatric Surgery.
3. Congenital malformations of the central nervous system. Complex treatment of child with hydrocephalus and myelingomyocele.
4. Congenital malformation of the gastrointestinal track (esophageal atresia, malrotation and midgut

volvulus, jejunoileal atresia, Hirschsprung's disease, anorectal anomalies, biliary atresia).
5. Minimally Invasive Pediatric Surgery (laparoscopic appendectomy, removal of Meckel's diverticulum, cholecystectomy, PIRS, TEPT).
6. Evaluation and treatment of pediatric trauma. Indications and conservative treatment of head trauma, injuries to the spleen, liver and kidneys.
7. Pediatric orthopedics (fractures and dislocations in children) - evaluation, treatment and rehabilitation
8. Congenital Genitourinary Anomalies (hydronephrosis, vesicoueteral reflux, bladder exstrophy). Disorders of bladder function.
9. Pediatric Surgical Oncology

Clinical classes

1. Introduction to pediatric surgery, fetal surgery.
2. Congenital malformations of alimentary tract, disorders of the abdominal wall.
3. Craniofacial congenital malformations, branchial remnants, spinal dysraphism, hydrocephalus.
4. Congenital lung malformations, chest wall deformities.
5. Congenital genitourinary malformations, obstructive uropathies, vesicoureteral reflux, neurogenic bladder.
6. Acute disorders in pediatric surgery - acute abdomen, acute scrotum, NEC, intussusception, ovarian torsion, ileus.
7. Most common pediatric surgery procedures - inguinal hernia, hydrocele testis, phimosis, undescended testis, umbilical problems, nevus, nodules.
8. Pediatric surgical oncology.
9. Pediatric traumatology (head, thorax, abdomen trauma, birth injuries, child abuse).
10. Burn injury, shock.
11. Student assessment

4.3 Course learning outcomes

Course learning outcomes (code)	Upon completion of the course, the student	Alignment with programme learning outcomes
in the area of **KNOWLEDGE**, the graduate knows how to:		
W01	knows and understand the causes, symptoms, principles of diagnosis and therapeutic procedures in the case of the most frequent diseases of children: a) rickets, tetany, seizures, b) heart defects, myocarditis, endocarditis and pericarditis, cardiomyopathy, arrhythmias , heart failure, hypertension, syncope, c) acute and chronic diseases of the upper and lower respiratory tract, congenital malformations of the respiratory system, tuberculosis, cystic fibrosis, asthma, allergic rhinitis, urticaria, anaphylactic shock, angioedema, d) anemia, bleeding disorders, conditions for marrow failure, cancer in children, including solid tumors typical of childhood; e) acute and chronic abdominal pain, vomiting, diarrhea, constipation, gastrointestinal bleeding, peptic ulcer, nonspecific intestinal diseases, pancreatic diseases, cholestasis, liver disease, and other acquired diseases and congenital defects of the gastrointestinal tract, f) urinary tract infections, congenital defects of urinary tract, nephrotic syndrome, kidney stones, acute and chronic renal failure, acute and chronic inflammation of kidney, systemic kidney disorders, urination disorders, gastroesophageal vesico-ureteral reflux disease, g) growth disorders, diseases of the thyroid and parathyroid, adrenal disease, diabetes, obesity, disorders of maturation and gonadal function, h) cerebral palsy, encephalitis and meningitis, epilepsy, i) the most common childhood diseases, j) genetic syndromes, k), connective tissue diseases, rheumatic fever, juvenile arthritis, systemic lupus, skin and muscle inflammation;	E.W3.
W02	knows the problems of: child abuse and sexual abuse, mental retardation, behavioral disorders: psychosis, addiction, eating disorders, and excretion in children;	E.W4.
W03	knows the basic ways of diagnosis and treatment of the fetus;	E.W5.

W04	knows the most common life-threatening conditions in children and the rules of conduct in these states;	E.W6.
W05	knows and understand the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common diseases requiring surgical intervention, taking into account the individuality of childhood, in particular: a) acute and chronic diseases of the abdominal cavity, b) diseases of the chest, c) diseases of limbs and head, d) bone fractures and injuries of organs;	F.W1.
W06	knows selected issues of pediatric surgery including traumatology and otorhinolaryngology, defects and acquired diseases being an indication for surgical treatment in children;	F.W2.
W07	knows eligibility rules as well as basic and most common complications of surgery and other invasive diagnostic and treatment procedures;	F.W3.
W08	knows perioperative safety rules, preparing a patient for surgery, general and local anesthesia and controlled sedation;	F.W4.
W09	knows postoperative treatment and analgesic therapy as well as post-operative monitoring;	F.W5.
W10	knows indications and rules for the application of intensive therapy;	F.W6.
W11	knows the current guidelines for cardiopulmonary resuscitation of the newborns, children and adults;	F.W7.
W12	knows the issues concerning modern imaging tests, in particular: a) basic radiological symptomatology of diseases, b) instrumental methods and imaging techniques used to perform medical treatments, c) the indications, contraindications and preparation of patients to particular types of imaging tests and contraindications the use of contrast agents;	F.W10.
W13	knows and understands the causes, symptoms, principles of diagnosis and therapeutic procedures for the most frequent diseases of the central nervous system in terms of: a) a swelling of the brain and its consequences, with particular emphasis on the states of emergency, b) other forms of intracranial narrowness of their consequences, c) cranio-cerebral injuries d) vascular malformations of the central nervous system, e) tumors of the central nervous system, f), diseases of the spine and spinal cord;	F.W13.
W14	knows the problem of surgical transplantation, indications for the transplantation of irreducibly damaged organs and tissues, and related procedures;	F.W14.
in the area of **ABILITIES**, the graduate knows how to:		
U01	conducts a review of medical history of the child and its family;	E.U2.
U02	conducts physical examination of the child at any age;	E.U4.
U03	assesses patient’s general condition, consciousness and awareness;	E.U7.
U04	assesses the condition of a newborn according to a the Apgar scale and assesses its maturity; examines neonatal reflexes;	E.U8.
U05	makes relations between anthropometric measurements and blood pressure with data in growth charts;	E.U9.
U06	assesses the stage of puberty;	E.U10.
U07	performs differential diagnosis of the most common diseases in adults and children;	E.U12.
U08	assesses and describes the somatic and mental state of patients;	E.U13.
U09	recognizes states of a direct threat to life;	E.U14.
U10	recognizes when a patient is under the influence of alcohol, drugs and other addictive products;	E.U15.
U11	plans diagnostic, therapeutic and preventive procedures;	E.U16.
U12	conducts analysis of the potential side effects of each drug and the interaction between them;	E.U17.
U13	qualifies the patient for home treatment and hospitalization;	E.U20.
U14	defines states in which functional status of the patient's or his/her preferences restrict the treatment in accordance with specific guidelines for the disease;	E.U21.
U15	interprets laboratory tests/results and identifies the reasons for deviations;	E.U24.
U16	applies dietary treatment (including enteral and parenteral feeding);	E.U25.
U17	assists when the following procedures and medical treatments are performed: a) transfusions of blood and blood products, b) drainage of the pleural cavity, c) puncture of the pericardium, d) puncture of the peritoneal cavity, e) lumbar puncture, f) needle biopsy,	E.U30.

	g) epidermal tests, h) intradermal and scarification tests and interpret their results;	
U18	plans specialist consultations;	E.U32.
U19	evaluates decubitus and applies appropriate dressings;	E.U35.
U20	acts correctly in the case of injuries (uses dressing or immobilization, stictches the wound);	E.U36.
U21	assists during a typical surgery, prepares the surgical site and locally anesthetizes operated area;	F.U1.
U22	uses basic medical tools;	F.U2.
U23	complies with the aseptic and antiseptic rules;	F.U3.
U24	manages simple wounds and changes sterile surgical dressing;	F.U4.
U25	examines nipples, lymph nodes, thyroid gland and the abdominal cavity in terms of acute abdomen, and performs finger test through the anus;	F.U6.
U26	assesses radiological test result in terms of the most common types of fractures, especially fractures of long bones;	F.U7.
U27	performs temporary immobilization of a limb, selects the type of immobilization necessary for use in typical clinical situations and checks blood supply to the limbs after using the cast;	F.U8.
U28	manages external bleeding;	F.U9.
U29	monitors the postoperative period basing on the basic parameters of life;	F.U12.
U30	assesses the condition of the unconscious patient in accordance with applicable international scales;	F.U21.
U31	recognizes the symptoms of increasing intracranial pressure;	F.U22.
U32	assesses indications for suprapubic puncture and participates in its execution;	F.U23.
U33	assists during the common urological procedures (diagnostic and therapeutic endoscopy of the urinary system, lithotripsy, puncture of the prostate);	F.U24.

in the area of social competences:

K01	establish and maintain deep and respectful contact with the patient and show understanding towards ideological and cultural differences;	H.S1.
K02	do what is right for the patient;	H.S2.
K03	respect medical confidentiality and patient's rights;	H.S3.
K04	take actions concerning the patient on the basis of ethical principles, being aware of social conditions and restrictions resulting from illness;	H.S4.
K05	recognize his/her own limitations and self-evaluate educational deficiencies and needs;	H.S5.
K06	promote healthy lifestyle;	H.S6.
K07	use reliable information sources;	H.S7.
K08	conclude on the basis of own surveys and observations;	H.S8.
K09	introduce rules of social conduct and teamwork to the group of specialists, including specialists form other medical professions also in the multicultural and multinational environment;	H.S9.
K10	give opinions concerning various aspects of professional activity;	H.S10.
K11	take responsibility for own decisions made during professional activities including own safety and safety of other people;	H.S11.

4.4 Assessment methods for learning outcomes

Assessment method (+/-)

Course learning outcomes (code)	Oral/written/ practical examinaion /other (specify)*	Test*	Project*	In-class activity*	Independent study*	Group work*	Other (specify)*

Type of classes

1: / 2:	L	S	CP	L	S	PC	L	S	PC	L	S	PC	L	S	PC	L	S	PC	L	S	PC
W01-W14	+			+	+					+									+		
U01-U33					+	+					+	+								+	+
K01-K11																			+	+	

Annotation. 1: form of classes; 2: learning outcomes

4.5 Assessment criteria for learning outcomes

Type of classes:

Lectures (L) (including classes conducted with the use of distance learning methods and techniques)

Grade	Assessment criteria
3,0	Test results 61-68%
3,5	Test results 69-76%
4,0	Test results 77-84%
4,5	Test results 85-92%
5,0	Test results 93-100%

5 ECTS credit allocation – student workload

Category	Student workload (full-time mode)
NUMBER OF HOURS WITH THE DIRECT PARTICIPATION OF THE TEACHER (CONTACT HOURS)	**55**
Participation in lectures*	**9**
Participation in seminars/laboratories*	**40**
Other (specify) e.g. classes conducted with the use of distance learning methods and techniques*	**6***
INDEPENDENT STUDY (NON-CONTACT HOURS)	**20**
Preparation for lectures*	**10**
Preparation for seminars/laboratories*	**10**
Preparation for examination/test*	
Gathering materials for project, online research*	
Preparation of a multimedia presentation*	
Other (specify)*	
TOTAL HOURS	**75**
ECTS CREDITS for the course	**3**

***** e-learning (without participation of the lecturer)

Approved for implementation (date and legible signatures of course instructors in the given academic year):

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