Appendix to Decision No. 4/2020

Pomeranian Medical *University* in *Szczecin[PUM]*
COURSE SYLLABUS
General information

Name of Course: Paediatric Surgery	
Type of course	Compulsory
PUM Faculty	Faculty of Medicine and Dentistry
Field of study	*Medicine*
Specialization	-
Level of study	Long-term studies
Form of study	full-time
Year of study /semester	IV
Number of ECTS credits allocated	2
Forms of teaching (number of hours)	lecture(10)/seminar(15)/exercise(15) total(40)
Methods of verification and assessment of learning outcomes *	☒**Graded credit**: ☐ descriptive credit ☒ Test credit ☐ practical credit ☐ oral credit ☐ credit without grade ☐ final exam: ☐ descriptive credit ☐ test credit ☐ practical credit ☐ oral credit
Head of Unit	dr n. med. Hanna Chojnacka, MD, Ph.D
Teaching assistant professor or person responsible for the course	dr n. med. Kaja Giżewska-Kacprzak, MD, Ph.D email: k.gizewska@gmail.com
Name and contact details of unit	Department of Pediatric Surgery, Oncology, Urology and Hand Surgery tel. 91-4253186; e-mail kkchdz@pum.edu.pl
Unit's website	https://www.pum.edu.pl/wydzialy/wydzial-lekarski/katedra-i-klinika-chirurgii-dzieciecej-i-onkologicznej
Language of instruction	Polish/English

*tick as appropriate, changing☐to☒

Detailed information

<table>
<tr><td colspan="2">Course objectives</td><td>● to acquaint a student with: pathological conditions in the field of paediatric surgery, with particular emphasis on congenital defects; possibilities of diagnostics, surgical treatment and taking into consideration prognosis as far as recovery is concerned,
● to emphasize the differences in the doctor-patient (child), doctor-parent (guardian), pediatric surgeon - pediatrician or family doctor relationships,
emphasizing physiopathological differences of a child's organism in relation to its age (from 1 day of life to 18 years of age).</td></tr>
<tr><td rowspan="2">Preliminary requirements in terms of</td><td>Knowledge</td><td>● congenital defects in a newborn requiring urgent surgical treatment due to life-threatening conditions (e.g. overgrowth of the oesophagus, duodenum, intestine, diaphragmatic hernia, open meningo-spinal hernia, lung cyst with symptoms of respiratory failure),
● congenital defects requiring emergency surgery (e.g. skeletal, craniofacial, genitourinary system defects),
● childhood trauma,
● pediatric malignant tumors requiring surgical treatment,
● acquired obstructions of the gastrointestinal tract,
● inflammatory conditions of childhood,
● diseases of the urinary system (congenital defects, lithiasis).</td></tr>
<tr><td>Skills</td><td>− examining a child at different ages (from the newborn period to 18 years of age).
− taking a history from the patient or his/her caregivers and logically linking the observed clinical symptoms to the disease entity.
− examining of the post-traumatic abdomen; indication of diagnostic methods to establish the diagnosis, monitoring of basic vital functions using a pulse oximeter.
− examining abdomen and the ability to assess inflammatory parameters and indicate imaging studies useful in the diagnosis of the so-called "acute abdomen".
− diagnosing certain congenital anomalies by physical examination: inguinal hernia, umbilical hernia, undescended testicle, peccosis, stool
− changing dressing, changing Redon's drain, removing of sutures from the wound, performance of local anaesthesia of the wound, insertion of urinary bladder catheter, insertion and removal of plaster dressing, immobilisation of upper limb with Desault's soft dressing, immobilisation of cervical spine with Schantz's soft collar
− arrangement of the patient on the operating table depending on the operated area, preparation of the operating field,</td></tr>
</table>

		observation of operative procedures, assisting possibilities. − assistance in selected procedures (removal of plaster immobilization, excision of small skin nevi), removal of sutures from the postoperative wound. applying dressings (skill in handling surgical instruments).
	Social competences	Ethical behaviour towards colleagues, medical staff, patients and the patient's family

LEARNING OUTCOMES			
Number of learning outcome	**A student who has completed of the COURSE knows/can:**	**SYMBOL (reference to) learning outcomes for the field of study**	**Method of verifying the learning outcomes***
W01	A student knows and understands the causes, symptoms, principles of diagnosis and therapeutic proceedings in relation to the most common diseases requiring surgical intervention, taking into account the specificity of childhood, including in particular a) acute and chronic abdominal diseases, b) chest diseases, c) diseases of the limbs and head, bone fractures and organ injuries	K_F.W1	S, D
W02	A student knows selected issues of pediatric surgery, including traumatology and otorhinolaryngology, defects and acquired diseases that are indications for surgical treatment in children	K_F. W2	S, D
W03	A student knows the rules of qualification and performance of basic surgical procedures and invasive diagnostic and therapeutic procedures	K_F.W3	S, D
W04	A student knows the principles of perioperative safety, preparation of the patient for surgery, administering general and local anaesthesia and controlled sedation	K_F.W4	D
W05	A student knows postoperative treatment with analgesic therapy and postoperative monitoring	K_F.W5	D
W06	A student knows the indications and principles of application of intensive therapy	K_F.W6	D
W07	A student knows the current guidelines for cardiopulmonary resuscitation of newborns, children and adults	K_F.W7	D
W08	A student knows the principles of operation of the integrated state medical rescue system	K_F.W8	D
W09	A student has knowledge of contemporary imaging studies, in particular, knows: a) radiological symptomatology of the underlying diseases, b) instrumental methods and imaging	K_F.W10	S, D

	techniques used to perform therapeutic procedures, c) indications, contraindications and preparation of patients for particular types of imaging examinations and contraindications to use of contrast agents		
W10	A student knows and understands the causes, symptoms, principles of diagnosis and therapeutic proceedings in relation to the most common diseases of the central nervous system in the scope: a) cerebral oedema and its sequelae, with particular reference to emergencies, b) other forms of intracranial cramping and their sequelae, c) craniocerebral trauma, d) CNS vascular malformations, e) CNS malignant tumors, diseases of the spine and spinal cord	K_F.W13	S, D
W11	A student knows the management of the maltreated child syndrome		D
W12	A student knows contemporary possibilities of surgical treatment of some foetal malformations		D
W13	A student knows the criteria of qualification of surgical treatment of children with minimally invasive methods.		D
W14	A student knows the physiopathology of early infantile hemangiomas and methods of their treatment		D
W15	knows and understands the specifics of surgical treatment of congenital malformations in children with particular emphasis on defects of face and hands		D
U01	A student assists in a typical surgical procedure, knows how to prepare the operating field and provide local anaesthesia of the operated area	K_F. U1	S, D
U02	A student uses basic surgical instruments	K_F.U2	S
U03	complies with the principles of asepsis and antisepsis	K_F.U3	S
U04	A student is able to dress a simple wound, put on and change a sterile surgical dressing	K_F.U4	S
U05	places a peripheral puncture	K_F.U5	S
U06	A student is able to examine the nipples, the lymph nodes, the thyroid gland and the abdominal cavity in terms of acute abdomen and to perform a finger examination through the rectum	K_F.U6	S, D
U07	A student assesses the radiographic findings for the most common types of fractures, especially long bone fractures	K_F.U7	S, D
U08	A student performs temporary immobilization of the limb, selects the type of immobilization necessary for application in typical clinical situations and controls the correct blood supply to the limb after immobilization	K_F.U8	S, D

	dressing placement		
U09	A student is able to treat external bleeding	K_F.U9	S, D
U10	A student performs basic resuscitation using automated external defibrillator and other emergency procedures and give first aid	K_F.U10	S
U11	A student is able to monitor the postoperative period based on basic vital signs	K_F.U12	S, D
U12	A student assesses the condition of the unconscious patient and determines according to current international scoring scales	K_F.U21	D
U13	A student diagnoses symptoms of increasing intracranial pressure	K_F.U22	D
U14	A student assesses the indications for performing a suprapubic puncture and participate in its performance	K_F.U23	S, D
U15	A student assists with typical urological procedures (diagnostic and therapeutic endoscopy of the urinary tract,	K_F.U24	S, D
U16	A student can do an orientation test on hearing	K_F.U26	S, D
K01	A student accepts the need for ethical standards;	K_K01	D
K02	A student understands the concept and the need for responsibility for the entrusted good	K_K02	D
K03	A student shows the habit of self-education, understands the need of lifelong learning, is able to inspire and organize the learning process of others	K_K03	D
K04	A student cooperates with team members; can cooperate in a group taking up different roles	K_K04	D
K05	A student ,during observations and functional tests, observes proper relations between the examiner and the examined	K_K05	D
K06	A student is able to formulate opinions concerning various aspects of professional activity	K_K06	D
K07	A student demonstrates an attitude promoting health and physical activity	K_K07	D
K08	A student is aware of social and cultural differences influencing individual interpretation of a life situation	K_K08	D
K09	A student accepts the autonomy of each person	K_K09	D
K10	A student accepts the need to speak a foreign language	K_K10	D
K11	A student can maintain medical confidentiality	K_K14	D
K12	A student is able to take care of his own safety, as well as that of his surroundings and colleagues	K_K15	D
K13	A student is aware of his/her own limitations and knows when to turn to experts	K_K17	D
K14	A student is aware of religious feelings and other people's beliefs about the human body	K_K19	D
K15	A student shows respect towards patients/clients/social groups for their welfare	K_K20	D

Table of learning outcomes in relation to the form of classes								
Number of learning outcome	**Learning outcomes**	**Form of the classes**						
		Lecture	**Seminar**	**Practical Exercises**	**Clinical exercises**	**Simulations**	**E-learning**	**Other forms**
W01	K_F.W1		x		x			
W02	K_F. W2	x	x		x		x	
W03	K_F.W3	x	x		x		x	
W04	K_F.W4	x	x		x		x	
W05	K_F.W5	x	x		x		x	
W06	K_F.W6		x		x			
W07	K_F.W7		x		x			
W08	K_F.W8		x		x			
W09	K_F.W10		x		x			
W10	K_F.W13		x		x			
W11	W11	x	x		x		x	
W12	W12	x					x	
W13	W13	x	x		x		x	
W14	W14	x			x		x	
W15	W15	x	x		x		x	
U01	K_F. U1		x		x			
U02	K_F.U2		x		x			
U03	K_F.U3		x		x			
U04	K_F.U4		x		x			
U05	K_F.U5		x		x			
U06	K_F.U6		x		x			
U07	K_F.U7		x		x			
U08	K_F.U8				x			

U09	K_F.U9				x			
U10	K_F.U10		x		x			
U11	K_F.U12		x		x			
U12	K_F.U21		x		x			
U13	K_F.U22		x		x			
U14	K_F.U23		x		x			
U15	K_F.U24		x		x			
U16	K_F.U26		x		x			
K01	K_K01	x	x		x			
K02	K_K02	x	x		x			
K03	K_K03	x	x		x			
K04	K_K04	x	x		x			
K05	K_K05	x	x		x			
K06	K_K06	x	x		x			
K07	K_K07	x	x		x			
K08	K_K08	x	x		x			
K09	K_K09	x	x		x			
K10	K_K10	x	x		x			
K11	K_K14	x	x		x			
K12	K_K15	x	x		x			
K13	K_K17	x	x		x			
K14	K_K19	x	x		x			
K15	K_K20	x	x		x			

TABLE OF CURRICULUM			
Curriculum number	**Curriculum content**	**Number of hours**	**Reference to the learning outcomes for the CLASSES**
Classes in the form of a block			
Lectures (e-learning form)			
TK01	Acute abdomen (appendicitis)	2	W01-W06,
TK02	Maltreated child syndrome	2	W01-W11, U07, K01-K15
TK03	Diagnosis and prenatal interventions in congenital malformations	2	W02, W12, W13 W15, K01-K15
TK04	Minimally invasive surgery in children	2	W01-06, W13, K01-K15
TK05	Early childhood hemangiomas	2	W14,
Seminars + Practical Exercises			
TK01	Childhood injuries	2 +2	W01-W10, U01-U16, K01-K15
TK02	Paediatric urology	3+2	W01-W09, U01-U06, U11, U12, U14, U15, K01-K15
TK03	Pediatric oncologic surgery	2+2	W01-W10, U01-U08, U11, U12
TK04	Craniofacial malformations	2+2	W01-W10, U01-U06, U11, U12, U14, U15
TK05	Hand surgery of children	2+3	W01-W05, U01-U04, U07-U08, K01-K15
TK06	Congenital malformations	2+2	W01-W10, U01-U06, U11, U12, U14, U15, K01-K15
TK07	Gastrointestinal obstruction	2+2	W01-W09, U01-U06, U09, U11, U12

Recommended Literature:
Reference literature
1.M. Bagłaj, P Kaliciński – „Chirurgia Dziecięca”
Complementary literature
1.J. Fibak - ”Chirurgia dla studentów”

Student workload	
Form of student workload (class participation, activity, report preparation, etc.)	Student workload [h]. In the teacher's assessment (opinion)
Contact hours with the teacher/instructor	40

Preparation for exercise/seminar	7
Reading the indicated literature	5
Writing a lab/exercise report/preparing a project/reference, etc.	
Preparation for a short test/test	3
Preparing for the exam	
Other	
Total student workload	55
ECTS credits	2

*Example Methodss to verify learning outcomes:
S - testing of practical skills
D-Discussion