



**Syllabus «Pediatric surgery»
individual profile course of choice
«Internal Medicine »**

1. General information

Name of the faculty	Medical
Educational program (branch, specialty, level of higher education, form of education)	22 «Health care», 222 «Medicine», second (master's) level of higher education, full-time
Academic year	2023-2024
Name of discipline, code	Pediatric surgery
Department (name, address, phone, e-mail)	Lviv City Clinical Children's Hospital 79059 Lviv, P.Orlyka str. 4 phone/fax: +38(032) 2939739, +38(032)2917050 Lviv Regional Children's Clinical Hospital "OKHMATDYT" 79008 Lviv, Lysenko str. 31 phone/fax: +38 (032)276-96-33 Western Specialized Children's Medical Centre 79035, Lviv, Dnisterska str. 27 phone: +38 (032) 270-45-01 e-mail: kaf_pedsurgery@meduniv.lviv.ua
Head of the department	Assoc. Prof., MD, PhD, Kuzyk A. kuzykandrij@hotmail.com
Year of study	6 year
Semester	XI- XII
Name of the faculty	Obligatory
Teachers	Kuzyk A. – MD, PhD, Assoc. Prof., kuzykandrij@hotmail.com Nakonechnyy A. – MD, PhD, Prof., andrurol@gmail.com Pereyaslov A. – MD, PhD, Prof., perejaslow_andre@yahoo.com Kulyk O., – MD, PhD, Professor, helenakulyk@meta.ua Dats R. – MD, PhD, datsroman@ukr.net Nykyforuk O. – MD, PhD, dr_olesyamn@hotmail.com Nakonechnyi R. – MD, PhD, nrostyslav@gmail.com Hyzha L. – MD, PhD, lilya0505@meta.ua Kens K. – MD, PhD, konstantinkens@gmail.com Kolivoska Yu. – Assist. Prof. , dr.yuriy.kol@gmail.com Fedus V. – MD, PhD, dr.viktoriafedus@gmail.com Silvester I. – MD, PhD, koraira24@rambler.ru
Number of ECTS credits	1
Number of hours (practical classes /	30 (15/15)

independent work of students)	
Language of instruction	Ukrainian / English
Information for consultation	According to the schedule

2. ANNOTATION

Pediatric surgery is one of the fundamental clinical disciplines in the system of higher medical education, the knowledge of which is necessary for the quality training of professionals in health care system. This is due to the fact that knowledge of pediatric surgery occupies a leading position in treatment of surgical pathology in children. In recent decades, pediatric surgery has been supplemented by new methods of diagnosis and treatment. State standards of higher medical education also apply that a doctor, pediatric surgeon must be able to diagnose and use different diagnostic methods and choose the best methods of surgical treatment in pediatric surgery.

Knowledge of pediatric surgery will allow the future doctor to choose the optimal diagnostic method for pathologies of different organs and systems, to interpret the data of diagnostic methods, evaluate the possibilities of different treatments and choose the optimal method of surgical treatment of surgical pathology in children.

3. METHODS AND AIMS OF THE DISCIPLINE

The aim of the discipline "Pediatric Surgery" is to acquire theoretical and practical knowledge of etiology, pathogenesis, classification, clinical manifestations, methods of diagnosis, conservative and surgical treatment, prevention and rehabilitation of children with surgical pathology, skills of clinical, laboratory and instrumental examination of the child in compliance with medical ethics and deontology principles, the acquisition by the student professional skills in maintaining medical records.

Acquisition by the student of knowledge and professional skills in differential diagnosis of surgical diseases of children, dispensary supervision of healthy and sick children in an outpatient setting and providing emergency care during the most common emergencies in children based on knowledge of age, anatomical and physiological features of the child's body.

Formation of the ability to use knowledge, skills, abilities to solve typical problems of the doctor in health care, the scope of which is provided by certain lists of syndromes and symptoms of diseases, emergencies, physiological conditions.

The main tasks of studying the discipline "Pediatric Surgery" are:

- teach students to identify typical clinical syndromes and symptoms of surgical diseases in children;
- diagnose and provide medical care in emergencies in pediatric diseases;
- interpret the general principles of treatment, rehabilitation and prevention of the most common surgical diseases and injuries in children;
- to determine the prognosis of life, health and quality of life in common surgical diseases and injuries in children;
- make a plan of examination and interpret the results of laboratory and instrumental methods of examination in children;
- demonstrate the ability to perform the necessary medical manipulations;
- provide emergency medical care in emergency cases in pediatric surgery;
- demonstrate the ability to maintain medical records;
- have moral and deontological principles of professional subordination in children's surgery

4. COMPETENCE AND LEARNING OUTCOME

According to the requirements of the Standard of Higher Education, discipline ensures students' acquisition of *competences*:

Integral competence: The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy

General competence (GC):

GC1. Ability to abstract thinking, analysis and synthesis

GC2 Ability to learn and master modern knowledge

GC3. Ability to apply knowledge in practical situations

GC4. Knowledge and understanding of the subject area and understanding of the professional activity

GC5. Ability to adapt and act in a new situation

GC6. Ability to make informed decisions

GC7. Ability to work in a team

GC8. Interpersonal skills

GC9. Ability to speak foreign language

GC10. Skills in the use of information and communication technologies

GC11. Ability to search, process and analyze information from various sources

GC12. Definiteness and perseverance in terms of tasks and responsibilities

GC13. The ability to act socially responsibly and consciously

GC14 The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine..

GC15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active rest and leading a healthy lifestyle.

Special (professional) competence (PC):

PC1. Ability to collect medical information about the patient and analyze clinical data.

PC2. Ability to determine the required list of laboratory and instrumental studies and evaluate their results

PC3. Ability to establish a preliminary and clinical diagnosis of the disease

PC4. Ability to determine the required mode of work and rest in the treatment and prevention of diseases

PC5. Ability to determine the nature of nutrition during the treatment and prophylaxis of diseases

PC6. Ability to determine the principles and nature of treatment and prophylaxis of diseases

PC7. Ability to diagnose emergencies

PC8. Ability to determine tactics and provide emergency medical care

PC10. Ability to perform medical manipulations

PC11. Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility

PC13. Ability to carry out sanitary and hygienic and preventive measures.

PC15. Ability to conduct medical and social examination and examination of working capacity.

PC16. Ability to maintain medical documentation, including electronic forms.

PC17. The ability to assess the impact of the environment, socio-economic and biological determinants on the state of health of an individual, family, population.

PC18. The ability to analyze the activity of a doctor, unit, health care institution, ensure the quality of medical care for children, adolescents and adults and increase the efficiency of the use of medical resources.

PC19. The ability to organize and integrate the provision of medical assistance to the population and the marketing of medical services.

PC20. Ability to conduct epidemiological and medical-statistical research on the health of children and adults; processing of social, economic and medical information.

PC21. It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists, in particular to people who are studying.

PC23. Ability to develop and implement scientific and applied projects in the field of health care.

PC24. Adherence to ethical principles when working with patients and laboratory animals.

PC25. Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results

Program learning results (PLR):

PLR 1. Have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy

PLR 2. Understanding and knowledge of basic and clinical biomedical sciences at a level sufficient for solving professional tasks in the field of health care.

PLR 3. Specialized conceptual knowledge that includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems

PLR 4. To isolate and identify the leading clinical symptoms and syndromes according to standard methods, using the previous data of the patient's history, the data of the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease.

PLR 5. Collect complaints, history of life and diseases, evaluate psychomotor and physical development of the patient, state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information regarding the diagnosis, taking into account the age of the patient.

PLR 6. To establish the final clinical diagnosis by making a reasoned decision and analyzing the received subjective and objective data of clinical, additional examination, differential diagnosis, observing the relevant ethical and legal norms, under the supervision of the managing physician in the conditions of the health care institution.

PLR 7. Assign and analyze additional (mandatory and optional) examination methods (laboratory, functional and/or instrumental) of patients with diseases of organs and body systems for differential diagnosis of diseases.

PLR 8. Determine the main clinical syndrome or what causes the severity of the victim/victim's condition (according to list 3) by making a reasoned decision and assessing the person's condition under any circumstances (in the conditions of a health care institution, outside its borders)

including . in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.

PLR 9. Determine the nature and principles of treatment (conservative, operative) of patients with diseases (according to list 2), taking into account the age of the patient, in the conditions of a health care institution, outside its borders and at the stages of medical evacuation, including in field conditions, on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes, in case of the need to expand the standard scheme, be able to substantiate personalized recommendations under the supervision of a doctor

PRN 10. Determine the necessary mode of work, rest and nutrition on the basis of the final clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.

PLR 14. Determine tactics and provide emergency medical care in emergency situations in limited time in accordance with existing clinical protocols and standards of treatment.

PLR 16. Form rational medical routes for patients; organize interaction with colleagues in their own and other institutions, organizations and institutions; to apply tools for the promotion of medical services in the market, based on the analysis of the needs of the population, in the conditions of the functioning of the health care institution, its division, in a competitive environment.

PLR 17. Perform medical manipulations in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.

PLR 18. To determine the state of functioning and limitations of a person's life activity and the duration of incapacity for work with the preparation of relevant documents, in the conditions of a health care institution, based on data on the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical documentation regarding the patient and the contingent of the population on the basis of regulatory documents.

PLR 19. To plan and implement a system of anti-epidemic and preventive measures regarding the occurrence and spread of diseases among the population.

PLR 21. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.

PLR 22. Apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex healthcare problems.

PLR 23. Assess the impact of the environment on the state of human health to assess the state of morbidity of the population

PLR 24. To organize the necessary level of individual safety (own and the persons they care about) in case of typical dangerous situations in the individual field of activity.

PLR 25. It is clear and unambiguous to convey one's own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists.

PLR 26. Manage work processes in the field of health care, which are complex, unpredictable and require new strategic approaches, organize work and professional development of personnel taking into account the acquired skills of effective teamwork, leadership positions, adequate quality, accessibility and fairness, ensuring provision of integrated medical care.

PLR 27. Communicate freely in the state language and in English, both orally and in writing to discuss professional activities, research and projects.

PLR 28. Make effective decisions on health care issues, assess the necessary resources, take into account social, economic and ethical consequences.

5. THE STRUCTURE OF THE DISCIPLINE

Discipline	Number of credits, hours, including			Year of study (semester)	Type of control	
	Total Credits/hours ECTS	Auditory				Student's out of class work
		Lectures (hours)	Practical classes (hours)			
Pediatric surgery	1 credits / 30 hours	-	15	15	6th (XI-XII)	zalik

Practical classes

№	Topic	Hours
1.	Malformations of the respiratory system <ul style="list-style-type: none"> ➤ Organic, compression and functional airway stenoses ➤ Vascular rings and loops ➤ Agenesis, aplasia, pulmonary hypoplasia ➤ Congenital lung cysts ➤ Congenital emphysema ➤ Pulmonary sequestration ➤ Diaphragmatic hernias ➤ Atresia of the esophagus 	5
2.	Defects in the development of the digestive tube <ul style="list-style-type: none"> ➤ Pylorostenosis ➤ Duodenal intestinal obstruction ➤ Anomalies of intestinal rotation and fixation ➤ Atresia and stenosis of the small and large intestine ➤ Hirschsprung's disease ➤ Anorectal malformations Defects in the development of the anteriorabdominal wall, liver and biliary tract. <ul style="list-style-type: none"> ➤ Omphalocele, gastroschisis ➤ Umbilical and inguinal hernia ➤ Biliary atresia Liver and bile duct cysts 	5
3.	Defects in the development of the musculoskeletal system. <ul style="list-style-type: none"> ➤ Congenital hip dislocation ➤ Congenital muscular torticollis ➤ Congenital limb pathologies ➤ Congenital spinal deformities ➤ Congenital malformations of the hand and foot: syndactyly, polydactyly, ectrodactyly Credit class	5
Total		15

Student's out of class work

№	TOPIC	Hours	Type of control
1.	Malformations of the liver and biliary tract. Biliary atresia. Etiology, pathophysiology. Clinical manifestations, possibilities of early diagnosis. Principles of operative treatment. Portoenterostomy (Kasai operation) and liver transplantation. Postoperative management of patients. Possibilities of improving the results of treatment of biliary atresia. Liver and choledochal cysts. Classification. Etiology, pathophysiology. Diagnostics. Surgical treatment. Complications, prognosis.	4	Workbook
2.	Defects in the development of the genitourinary system. Anomalies of the position and development of the kidneys. Megaureter, hydronephrosis. Violation of the patency of the ureteric segment. Bladder-ureteral reflux. Cryptorchidism, testicular ectopy. Hypospadias; epispadias Varicocele. Bladder exstrophy.	4	
3.	Congenital and acquired spinal deformities in children. Juvenile kyphosis. Congenital scoliosis. Idiopathic scoliosis. Scheuerman-Mau disease. Calve's disease.	4	
4.	Congenital malformations of the chest in children. Funnel-shaped deformation of the chest. Keel-shaped deformation. Clinical manifestations, principles of treatment. Poland syndrome. Curarino-Silverman syndrome. Congenital splitting of the sternum. Isolated deformations of ribs.	3	
Total		15	

6. TYPES OF CONTROL (CURRENT AND FINAL)

Types of educational activities of graduate students according to the curriculum are:

- a) practical classes,
- b) independent work of students

Practical classes include:

- curation of patients;
- research of patients with surgical pathology;
- study of the functional state of vital organs and systems of patients;
- practical use of surgical methods of diagnosis and treatment;
- solving clinical situational problems and tests;
- mastering the elements of medical equipment on patients, dummies;
- mastering the skills of operative techniques during operative interventions and work in the dressing room

Current control is carried out during practical classes and aims to verify the assimilation of students' learning material. Forms of current control are:

- a) test tasks with the choice of one correct answer, with the definition of the correct sequence of actions, with the definition of conformity, with the definition of a certain area in the photo or diagram ("recognition");
- b) solving typical situational problems;
- c) control of practical skills.

5	200	4,6	184	4,17	167	3,77	151	3,35	134
4,97	199	4,57	183	4,14	166	3,74	150	3,32	133
4,95	198	4,52	182	4,12	165	3,72	149	3,3	132
4,92	197	4,5	180	4,09	164	3,7	148	3,27	131
4,9	196	4,47	179	4,07	163	3,67	147	3,25	130
4,87	195	4,45	178	4,04	162	3,65	146	3,22	129
4,85	194	4,42	177	4,02	161	3,62	145	3,2	128
4,82	193	4,4	176	3,99	160	3,57	143	3,17	127
7,8	192	4,37	175	3,97	159	3,55	142	3,15	126
4,77	191	4,35	174	3,94	158	3,52	141	3,12	125
4,75	190	4,32	173	3,92	157	3,5	140	3,1	124
4,72	189	4,3	172	3,89	156	3,47	139	3,07	123
4,7	188	4,27	171	3,87	155	3,45	138	3,02	121
4,67	187	4,24	170	3,84	154	3,42	137	3	120
4,65	186	4,22	169	3,82	153	3,4	136	Less than 3	Not enough
4,62	185	4,19	168	3,79	152	3,37	135		

Scores of discipline for students who completed the program successfully converted a traditional 4-point scale by absolute criteria, which are listed in the table below:

(Points) Score 4-point scale	(Points) Score 4-point scale
From 170 till 200 points	5
From 140 till 169 points	4
From 139 till min.	3
Less than min. points	2

The ECTS score is not converted to the traditional scale, as the ECTS scale and the four-point scale are independent.

The objectivity of the assessment of students' knowledges is checked by statistical methods (correlation coefficient between ECTS assessment and assessment on a national scale).

7. THE LIST OF QUESTIONS

1. Etiopathogenesis of congenital malformations. The concept of normal and anomaly.
2. Classification of congenital malformations of the respiratory system.
3. Clinical symptoms and syndromes in congenital malformations of the respiratory tract and lungs.
4. Methods of diagnosis of congenital malformations of the respiratory system. Modern radiation and endoscopic technologies.
5. Congenital stenosis of the trachea (full rings). Options, clinic, diagnosis, principles of treatment.
6. Compression stenosis of the trachea. Anatomical variants of the vascular ring.
7. Complete vascular ring: double aortic arch and right aortic arch. Clinic, diagnosis, principles of treatment.
8. Incomplete vascular ring: aberrant right subclavian artery, anomalies of the brachiocephalic trunk. Clinic, diagnosis, principles of treatment.
9. Pulmonary artery loop. Options, clinic, diagnosis, principles of treatment.
10. Compression stenosis of the trachea in tumors and cysts of the mediastinum. Variants of nosologies, clinical manifestations, diagnostic methods, principles of treatment.
11. Congenital isolated tracheoesophageal fistula. Clinic, diagnosis, principles of treatment.
12. Congenital emphysema of the lungs. Pathogenesis, clinic, diagnosis, principles of treatment.
13. Aplasia of the lung. Pathogenesis, clinic, diagnosis, differential diagnosis, possibilities of surgical treatment.
14. Congenital lung cysts. Classification, diagnosis, complications, surgical treatment.
15. Pulmonary sequestration. Options, features of pathogenesis, clinic, diagnosis, treatment.
16. Bronchiectasis. Clinic, diagnosis, treatment.
17. Tracheostomy. Indications and contraindications. Execution technique.
18. Classification of esophageal atresia. Possibilities of prenatal diagnosis of esophageal atresia.
19. Clinical picture and diagnosis of neonatal esophageal atresia. The reasons for the development of aspiration pneumonia in various forms of esophageal atresia.
20. VACTERL association in esophageal atresia. Clinical manifestations, principles of diagnosis and treatment.
21. Preoperative preparation and choice of surgical tactics depending on the form of esophageal atresia.
22. Possible postoperative complications of esophageal atresia. Clinical manifestations, principles of diagnosis and treatment.
23. Tracheomalacia associated with esophageal atresia. Causes, clinical manifestations, methods of diagnosis, methods of treatment.
24. Definition of the term "congenital diaphragmatic hernia". Classification. Mechanism of defect formation.
25. Pulmonary hypoplasia and pulmonary hypertension in congenital diaphragmatic hernia. Causes of formation, morphological characteristics.
26. What are the clinical manifestations of congenital diaphragmatic hernia in a newborn? What diagnostic methods are used to confirm the diagnosis?
27. Assistance to a newborn with congenital diaphragmatic hernia in the delivery room. Principles of preoperative stabilization.
28. Principles of surgical treatment of DH. Operational accesses. Ways to close the diaphragm defect.
29. Postoperative management of newborns with DH. What surgical and non-surgical complications occur after correction of congenital diaphragmatic hernia? Possibilities of their prevention.
30. Features of the clinical course and modern methods of diagnosis of congenital hypertrophic pylorostenosis.
31. Preoperative preparation, surgical treatment of congenital hypertrophic pylorostenosis. Possibilities of laparoscopy.
32. Duodenal intestinal obstruction: causes, prenatal diagnosis, diagnostic algorithm in the newborn.
33. Classification of disorders of rotation and fixation of the intestine.

34. Clinical manifestations, diagnosis and treatment of intestinal rotation disorder, I period.
35. Classification of atresia of the small intestine. Pre- and postnatal diagnostics. Principles of treatment.
36. Hirschsprung's disease. Definition, anatomical forms.
37. Clinical manifestations of Hirschsprung's disease depending on the form of the course.
38. Modern principles of diagnosis of Hirschsprung's disease.
39. Principles of surgical treatment of Hirschsprung's disease depending on the anatomical form, clinical course and age of the child.
40. Intestinal dysgangliosis, hypogangliosis and other disorders of intestinal motility. Clinical manifestations, possibilities of diagnosis and differential diagnosis with Hirschsprung's disease.
41. Meconial intestinal obstruction. Etiology, pathogenesis, clinical manifestations.
42. Conservative and operative treatment of meconium intestinal obstruction.
43. Anorectal malformations in boys. Types, clinical manifestations.
44. Anorectal malformations in girls. Types, clinical manifestations.
45. Cloacal form of anorectal atresia. Classification, accompanying defects, clinical manifestations, complications.
46. Modern principles of treatment of anorectal malformations.
47. Complications after surgical correction of anorectal malformations, their prevention. Social and medical rehabilitation.
48. Prenatal diagnosis of malformations of the anterior abdominal wall: timing of diagnosis, methods of diagnosis, biochemical markers.
49. Clinical manifestations and treatment of gastroschisis.
50. Definition, classification, clinical manifestations of omphalocele. Methods of treatment of omphalocele.
51. Differential diagnosis of gastroschisis and omphalocele.
52. Causes, peculiarities of the anatomical structure of inguinal hernias in children. Principles of surgical treatment.
53. Umbilical hernia in children. Clinical manifestations, possible complications, principles of treatment, terms of surgical intervention.
54. Rare forms of malformations of the anterior abdominal wall. Muscle aplasia ("plum belly syndrome") - clinical manifestations, accompanying defects, complications.
55. Definition, classification of choledochal cysts.
56. Principles of surgical treatment of choledochal cysts. Prevention of ascending cholangitis.
57. Biliary atresia: definition of the defect, possible causes, classification.
58. Clinical manifestations and methods of diagnosis and treatment of biliary atresia.
59. Liver cysts: types, clinical manifestations, methods of diagnosis, indications for active surgical tactics.
60. Juvenile kyphosis: definition, classification, clinical manifestations, treatment principles, effectiveness criteria.
61. Congenital scoliosis: definition, clinical manifestations, principles of treatment.
62. Idiopathic scoliosis: definition, principles of classification, treatment depending on the degree of deformity.
63. Calve's disease: definition, principles of treatment.
64. Instrumental methods of research of patients with scoliosis.
65. Principles of surgical treatment of scoliosis in children.
66. Differential diagnosis of scoliotic posture and scoliosis.
67. What is a muscular crooked neck?
68. What is congenital clubfoot?
69. What are the early and late symptoms of congenital hip dislocation?
70. At what time after the birth of a child can be diagnosed with congenital clubfoot?
71. When to start conservative treatment of congenital clubfoot?
72. What is the normal acetabular angle in newborns?
73. Modern treatment of clubfoot.

74. What operation is used in the treatment of muscular torticollis?
75. What type of operations for the treatment of funnel-shaped deformation of the chest is used most often at the modern stage?
76. What characteristic symptom of funnel-shaped chest deformation in children do you know?
77. State the symptoms characteristic of Marfan syndrome?
78. The optimal age for surgical treatment of FSDC?
79. What is the normal excursion of the chest?
80. Name the complication of surgical treatment of chest deformities?

8. RECOMMENDED LITERATURE

Bases literature

1. Ashcraft's pediatric surgery. Sixth edition / G.W. Holcomb, J. P. Merphy, D. J. Ostlie (Eds.) – Elsevier, 2014. – 1165 p.
2. Ashcraft's Pediatric Surgery / edited by G. W. Holcomb III, J. P. Murphy, associate editor D. J. Ostlie. – 5th ed. – SAUNDERS Elsevier, 2010 – P. 322 – 329, 853 – 996.
3. Lewis Spitz, Arnold Coran Operative Pediatric surgery /CRC Press, 2013. – 1134p.
4. Mario L. Fundamentals of Pediatric Surgery / L. Mario. – Springer, 2017. – 444 p.
5. Mattei P. Fundamentals of Pediatric Surgery / P. Mattei. – Springer, 2017. – 935 p.
6. Operative pediatric surgery. 2nd edition / Edited by M.M. Ziegler, R.G. AziGChan, D. von Allmen, T.R. Weber. – McGraw-Hill Education, 2014. – 1397 p.
7. Operative pediatric surgery. Seventh edition / Edited by L. Spitz and A.G. Coran. – CRC Press, 2013. – 1134 p.
8. Pediatric Surgery. V. 2. Seventh edition / Arnold G. Coran, A. Caldamone, N. Scott Adzick et al. – Elsevier, 2012. – 848 p.
9. Prem Puri, Michael E. Höllwarth, Pediatric surgery / Springer Science & Business Media, 2006. – 634p.
10. S.I. Schwartz and all Principles of Surgery, Companion handbook 7th ed. / Saunders, Philadelphia Pennsylvania, 1998. – 1136p.

Additional literature:

1. Mattei P. Fundamentals of Pediatric Surgery / P. Mattei. – Springer, 2011. – 956 p.
2. Operative pediatric surgery. 2nd edition / Edited by M.M. Ziegler, R.G. AziGChan, D. von Allmen, T.R. Weber. – McGraw-Hill Education, 2014. – 1397 p.
3. Operative pediatric surgery. Seventh edition / Edited by L. Spitz and A.G. Coran. – CRC Press, 2013. – 1134 p.
4. Pediatric Surgery. V. 2. Seventh edition / Arnold G. Coran, A. Caldamone, N. Scott Adzick et al. – Elsevier, 2012. – 848 p.
5. Steven Stylianos, Richard H. Pearl. Abdominal Trauma / in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012, – P. 289-309.
6. Rebeccah L. Brown, Richard A. Falcone Jr., Victor F. Garcia. Genitourinary Tract Trauma / in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick [et al.] – 2012, – P. 311-325
7. Richard S. Davidson, B. David Horn. Musculoskeletal Trauma / in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick .[et al.] – 2012. – P.327-336.
8. Peter F. Ehrlich, Robert C. Shamberger. Wilms' Tumor in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012. – P. 423-440.

9. Marshall Z. Schwartz. Hypertrophic Pyloric Stenosis in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick . . . [et al.] – 2012. – P.1021–1028.
10. Paul M. Columbani, Stefan Scholz. Intussusception in: Coran A. G. Pediatric surgery. – 7th ed. / editor in chief, Arnold G. Coran; associate editors, N. Scott Adzick [et al.] – 2012. – P. 1093–1110.

Information resources

When studying the discipline, through the use of local and global computer networks, students use the following information resources and knowledge bases:

Ministry of Health - <http://www.moz.gov.ua/ua/portal/>

1. Вікіпедія - <http://uk.wikipedia.org>
2. UpToDate – <http://www.uptodate.com/home>
3. Access Medicine - <http://accessmedicine.mhmedical.com>
4. PubMed - <https://www.ncbi.nlm.nih.gov/pmc/>
5. Medscape eMedicine - https://emedicine.medscape.com/pediatrics_surgery
6. American Pediatric Surgical Association - <https://eapsa.org/>
7. European paediatric surgeon association - <http://www.eupsa.info/>
8. European Society of Paediatric Endoscopic Surgeons - <https://www.espes.eu/>