MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
MINISTRY OF SCIENCE, HIGHER EDUCATION, AND INNOVATION OF THE KYRGYZ REPUBLIC

Kyrgyz-Russian Slavic University named after the first President of the Russian Federation B.N. Yeltsin

APPROVED
(position)
(Full Name)
04.11 2026

Pediatric Surgery

Course Description (module)

Assigned to the Department:	**Pediatrics and Pediatric Surgery**
Curriculum:	310501_26_1 ld in.plx Specialty: 31.05.01. - RF, 560001 - KR General Medicine (for international students)
Qualification:	**General Practitioner**
Form of study:	**Full-time**
Total workload:	**2 ZET**
Curriculum hours:	72
including:	
Classroom classes:	48
Independent work:	23,7

Types of assessment per semester:
12 credits

Distribution of course hours by semester:

Semester (<Course>.<Semester in the course>)	12 (6.2)		Total	
Weeks	18			
Type of activity	SP	WP	SP	WP
Lectures	16	16	16	16
Practical classes	32	32	32	32
Contact work during theoretical training	0,3	0,3	0,3	0,3
Including interactive forms	4	4	4	4
Total auditorium classes	48	48	48	48
Total contact work	48,3	48,3	48,3	48,3
Independent work (Self-study)	23,7	23,7	23,7	23,7
Total workload	72	72	72	72

1. GOALS OF MASTERING THE DISCIPLINE	
1.1	The goals of mastering the discipline of pediatric surgery are to provide students with the necessary information on semiotics, clinical presentation, diagnosis, differential diagnosis, treatment strategy, and emergency care for surgical congenital anomalies, surgical and urological diseases, traumatic injuries, tumors, and critical conditions in children of various age groups.
1.2	The objective of studying the discipline is to learn the basic principles of diagnosing congenital anomalies and surgical diseases in children requiring emergency (urgent) medical care, master medical tactics regarding these conditions, and provide psychological support to children and their parents.
1.3	The learning objectives include teaching students to:
1.4	- establish a preliminary diagnosis of surgical diseases in children in typical situations;
1.5	- master the timing of surgical correction for congenital malformations;
1.6	- resolve questions regarding the timing of referral to a surgeon;
1.7	- provide emergency medical care;
1.8	- carry out the necessary pathogenetic therapy aimed at preventing complications;
1.9	- determine and ensure the necessary conditions for transporting children with surgical diseases and congenital malformations;
1.10	- master methods of persuading parents of the need for surgical correction of malformations within specific timeframes;
1.11	- understand the principles of follow-up care (dispensary observation) and rehabilitation of children discharged from a surgical hospital.
1.12	The study of pediatric surgery is conducted according to the classical principle — from propedeutics of pediatric surgical diseases to the study of specific nosological entities.

2. PLACE OF THE DISCIPLINE IN THE STRUCTURE OF THE ACADEMIC PROGRAM (EP)	
Educational Program Cycle	B1.O
2.1	**Prerequisites and requirements for prior student preparation:**
2.1.1	Cycle (section) of the Educational Program: B1.O
2.1.2	2.1 Requirements for the preliminary preparation of the student:
2.1.3	2.1.1 A general practitioner must not only know the main symptoms and clinical manifestations of the most common surgical diseases, but also be able to conduct the necessary examination, establish a correct diagnosis, determine surgical tactics, and provide emergency medical care in critical conditions in children.
2.1.4	2.1.2 The study of pediatric surgery is conducted in a classical sequence: from mastering basic surgical patient care skills in the 1st year and propedeutics of pediatric surgical diseases to the study of nosological entities and surgical syndromes in children in the 6th year.
2.1.5	2.1.3 The training course "General Nursing Care for Surgical Patients" in a surgical hospital is represented as a separate program.
2.1.6	2.1.4 This program is designed so that in the 11th semester, students study the main branches of pediatric surgery: emergency abdominal and purulent surgery, urology, elective surgery, traumatology and orthopedics, thoracic surgery, neonatal surgery, and resuscitation and intensive care for surgical diseases in children.
2.1.7	2.1.5 During classes, students study the semiotics and diagnostics of surgical diseases and congenital malformations in children, including the analysis of etiology, pathogenesis, clinical presentation, diagnosis, prevention, timing, and methods of treatment. In practical sessions, students acquire practical skills in examining children with surgical pathology, with significant emphasis placed on developing the ability to establish rapport with a sick child and their parents, as well as conducting an initial physical examination of the child considering age-specific characteristics and severity of the condition.
2.1.8	2.1.6 Great attention is paid to differential diagnosis, especially with borderline conditions, and indications regarding the timing of surgical intervention.
2.1.9	2.1.7 Surgical treatment of patients is analyzed strictly from the perspective of age-based indications and the goals of the operation, without studying technical operative details.
2.1.10	2.1.8 The foundation of practical skills is the provision of emergency medical care to children with severe and complicated courses of surgical pathology at different stages of medical care (Feldsher-Obstetric Station [FAP], local hospital, outpatient clinic [Family Medicine Center / FMC, Family Group Practice / FGP], somatic inpatient department, Central District Hospital / CDH, Emergency Medical Service station) and the organization of proper transportation of patients, especially during the neonatal period.
2.1.11	2.1.9 Considerable attention in the educational process is devoted to issues of medical deontology, addressing the moral, ethical, and professional requirements expected of physicians in their clinical practice.
2.1.12	2.1.10 In addition, across all training modules, students study the aspects of follow-up care (dispensary observation) and rehabilitation of children discharged from a surgical hospital.
2.1.13	2.1.11 The material presented in the pediatric surgery curriculum relies on knowledge previously acquired by students in the departments of pediatrics, general surgery, humanities, medical psychology, and psychotherapy.

2.1.14	2.1.12 Subsequently, this knowledge is deepened and expanded during the study of other clinical disciplines involved in the management of a sick child: "Infectious Diseases with Epidemiology", "Military Epidemiology", "General Surgery", "Oncology", "Pediatrics", "Obstetrics and Gynecology", where the issues of medical care delivery are considered in conjunction with specific aspects of etiopathogenesis, diagnostics, and patient rehabilitation.
2.1.15	2.1.13 Basic prerequisite knowledge required for studying the discipline:
2.1.16	2.1.14 Anatomy
2.1.17	2.1.15 Physiology
2.1.18	2.1.16 Histology with Embryology
2.1.19	2.1.17 Microbiology
2.1.20	2.1.18 Clinical Pharmacology
2.1.21	2.1.19 Pathological Anatomy
2.1.22	2.1.20 Pathological Physiology
2.1.23	2.1.21 Operative Surgery
2.1.24	2.1.22 General and Hospital Surgery
2.1.25	2.1.23 Radiology
2.1.26	2.1.24 Propedeutics of Internal Medicine
2.1.27	2.1.25 Propedeutics of Pediatrics
2.1.28	2.1.26 Pediatrics
2.1.29	2.1.27 Urology
2.1.30	2.1.28 Traumatology
2.1.31	2.1.29 Obstetrics and Gynecology
2.1.32	2.1.30 Surgical Practice (Physician Assistant)
2.1.33	2.1.31 Emergency Medical Procedures Practice (Fundamentals of Emergency Care)
2.1.34	2.1.32 Medical Rehabilitation
2.1.35	2.1.33 Normal Physiology
2.1.36	2.1.34 General Practice Internship (Outpatient Clinic Physician Assistant)
2.1.37	2.1.35 Anatomy
2.1.38	2.1.36 General Surgery
2.1.39	B1.O.20. Anatomy
2.1.40	B1.O.22. Histology, Embryology, Cytology
2.1.41	B1.O.24. Microbiology, Virology
2.1.42	B1.O.36. Clinical Pharmacology
2.1.43	B1.O.23. Normal Physiology
2.1.44	B1.O.27. Pathological Anatomy
2.1.45	B1.O.28. Pathophysiology, Clinical Pathophysiology
2.1.46	B1.O.21. Topographic Anatomy and Operative Surgery
2.1.47	B1.O.50. Traumatology, Orthopedics
2.1.48	B1.O.32. Propedeutics of Internal Medicine
2.1.49	B1.O.46. Hospital Surgery
2.1.50	B1.O.56. Obstetrics
2.1.51	B1.O.44. General Surgery
2.1.52	B1.O.51. Urology
2.1.53	B1.O.58. Pediatrics
2.1.54	B2.V.02(P). Surgical Practice (Physician Assistant)
2.1.55	B1.O.57. Gynecology
2.1.56	B1.O.19. Anatomy
2.1.57	B1.O.20. Topographic Anatomy and Operative Surgery
2.1.58	B1.O.49. Traumatology and Orthopedics
2.1.59	B1.O.23. Microbiology and Virology
2.1.60	B1.O.35. Clinical Pharmacology
2.1.61	B1.O.26. Pathological Anatomy
2.1.62	B1.O.21. Histology, Embryology, Cytology
2.1.63	B1.O.60. Clinical Pathological Anatomy
2.1.64	B1.O.27. Pathophysiology, Clinical Pathophysiology
2.1.65	B1.O.22. Normal Physiology
2.1.66	B1.O.56. Gynecology
2.1.67	B1.O.57. Pediatrics

2.1.68	B1.O.50. Urology
2.1.69	B1.O.43. General Surgery
2.1.70	B1.O.44. Departmental Surgery
2.1.71	B1.O.46. Anesthesiology, Resuscitation, and Intensive Care
2.1.72	B2.V.02(P). Surgical Internship (Physician Assistant)
2.2	**Disciplines and practical trainings for which mastering this discipline (module) is a prerequisite:**
2.2.1	Diagnostic and treatment standards.
2.2.2	Fundamentals of critical thinking: Evidence-based medicine.
2.2.3	Preparation for and passing of the state examination.
2.2.4	Research work
2.2.5	Practice in emergency medical procedures (Anesthesiologist-Intensivist Assistant)
2.2.6	Preparation for and passing of the state examination
2.2.7	Anesthesiology, Intensive Care, and Critical Care Medicine
2.2.8	B3.O.02. Preparation for and passing of the state examination
2.2.9	B3.O.01. Preparation for and Passing the State Examination.

3. STUDENT COMPETENCES FORMED AS A RESULT OF MASTERING THE DISCIPLINE (MODULE)

GPC-7: Able to prescribe treatment and monitor its efficacy and safety	
Know:	
Level 1	etiology, pathogenesis, and clinical presentation of major diseases across various nosological entities, as well as methods for patient management and treatment in outpatient and day-hospital settings;
Be able to:	
Level 1	compare various types and methods of treatment for patients with different nosological entities, and develop a disease treatment plan; manage and treat patients in outpatient and day-hospital settings; exercise control over
Own:	
Level 1	skills in analyzing various types of treatment for patients with different nosological entities; skills in managing and treating patients with various diseases in outpatient and day-hospital settings.

PC-4: Ready to collect and analyze patient complaints, medical history, physical examination findings, as well as laboratory, instrumental, pathomorphological, and other diagnostic data to recognize conditions or establish the presence or absence of a disease	
Know:	
Level 1	the main types and methods of treatment for pediatric patients and adolescents with various nosological entities, as well as their specific characteristics.
Be able to:	
Level 1	select optimal treatment methods for children and adolescents depending on the nosological form of the disease.
Own:	
Level 1	techniques for searching and comparing different methods of treatment for pediatric patients and adolescents with various nosological entities.

PC-5: Able to determine primary pathological conditions, symptoms, disease syndromes, and nosological entities in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, 10th Revision.	
Know:	
Level 1	etiopathogenesis, clinical presentation, and diagnostics of major diseases, methods and tools for collecting and analyzing medical complaints and history of a child and adolescent, as well as indications and contraindications for the management and treatment of children and adolescents in outpatient and day-hospital settings.
Be able to:	
Level 1	collect and analyze patient complaints and medical history data; order laboratory, instrumental, and other diagnostic examinations to recognize a condition or determine the presence or absence of a disease; and establish indications and contraindications for management and treatment in outpatient and day-hospital settings.
Own:	
Level 1	etiopathogenesis, clinical presentation, and diagnostics of major diseases, methods and tools for collecting and

	analyzing medical complaints and history of a child and adolescent, as well as indications and contraindications for the management and treatment of children and adolescents in outpatient and day-hospital settings.

PC-7: Able to determine management strategies for patients with various nosological entities	
Know:	
Level 1	rules for conducting system-by-system physical examinations in children, and principles of primary resuscitation for pediatric patients of various ages
Be able to:	
Level 1	identify and isolate key symptoms of organ and system involvement in children during life-threatening conditions
Own:	
Level 1	practical skills in identifying major organ and system involvement syndromes in pediatric emergency conditions

PC-11: Ready to participate in providing emergency medical care for conditions requiring urgent medical intervention.	
Know:	
Level 1	algorithms for emergency medical care; key physician-level diagnostic and therapeutic interventions for providing first medical aid in emergency conditions requiring immediate medical intervention.
Be able to:	
Level 1	select an individualized type of care for patient treatment depending on the clinical situation: first aid, emergency medical care, or hospitalization.
Own:	
Level 1	proficiency in a complex of resuscitation measures for acute respiratory and circulatory failure, as well as clinical death; knowledge of modern resuscitation and intensive care methods when providing emergency care to patients and victims in critical conditions of various etiologies.

PC-12: Ready to participate in providing medical assistance in emergency situations, including participation in medical evacuation.	
Know:	
Level 1	Fundamentals of developing a safety culture, environmental awareness, and risk-oriented thinking, in which safety and environmental preservation issues are considered top priorities of human life activity.
Be able to:	
Level 1	Understand the theory of the epidemic process, the types of epidemiological studies, and their purposes; Implement anti-epidemic measures and public health protection in outbreaks of particularly dangerous infections, under deteriorating radiation conditions, and during natural disasters; Identify the harmful effects of environmental factors on the human body, key features of the clinical course and potential complications of the most common diseases, diagnostic methods, as well as modern clinical, laboratory, and instrumental examination methods for patients; Analyze the organizational specifics of delivering medical care during mass gatherings and sporting events, as well as in emergency situations and disasters during peacetime and wartime.
Own:	
Level 1	Methods of organizing a comprehensive set of measures aimed at preserving and promoting health and eliminating harmful factors; Skills in analyzing and assessing the quality of medical care, the health status of the population, and the impact of environmental and occupational factors on it; Skills in preventing the occurrence and spread of diseases, ensuring their early diagnosis, and identifying their root causes; Skills in executing preventive, hygienic, and anti-epidemic measures; Ability to select an individualized mode of care for patient management appropriate to the clinical situation: first aid, emergency medical care, or hospitalization.

PC-14: Able to maintain medical documentation.	
Know:	
Level 1	The list and characteristics of medical record-keeping and reporting documentation in healthcare organizations; Regulatory documentation adopted in the healthcare sector, as well as documentation used for evaluating the quality

	and effectiveness of healthcare organizations' operations.
Be able to:	
Level 1	Conduct medico-statistical analysis of health indicators for the assigned population; Maintain medical documentation, including in electronic form.
Own:	
Level 1	Skills in managing and completing various types of medical record-keeping and reporting documentation in healthcare facilities; Skills in performing comparative analysis of different forms of medical documentation in healthcare facilities.

As a result of mastering the course, the student should:

3.1	**Know:**
3.1.1 Etiology, pathogenesis, and preventive measures for the most common pediatric surgical diseases; 3.1.2 Modern classification of pediatric surgical diseases; 3.1.3 Clinical presentation, features of the clinical course, and potential complications across different age groups; 3.1.4 Fundamental principles of diagnosing surgical diseases in pediatric patients; 3.1.5 Modern methods of clinical, laboratory, and instrumental examination of patients; 3.1.6 Treatment methods and indications for their application; 3.1.7 Fundamentals of organizing outpatient and polyclinic care for the population; 3.1.8 Optimal timing for the surgical management of congenital malformations in children; 3.1.9 Principles of follow-up care (dispensary observation) and rehabilitation of patients; 3.1.10 Ethical and deontological aspects in pediatric surgery.	
3.2	**Be able to:**
3.2.1 Take a medical history from a surgical patient; 3.2.2 Perform a physical examination of the patient; 3.2.3 Interpret diagnostic findings (laboratory, radiological, and instrumental); 3.2.4 Formulate a clinical diagnosis; 3.2.5 Establish indications for the selected treatment method; 3.2.6 Apply disease prevention strategies; 3.2.7 Organize the medical transport of neonates with surgical conditions, visceral trauma, or burns; 3.2.8 Complete and maintain patient medical records (case history).	

3.3	**Own:**
3.3.1 Various surgical techniques for acute abdominal surgical conditions in children; 3.3.2 The timing and modalities of surgical interventions for gastrointestinal diseases in pediatric patients; 3.3.3 Surgical approaches for the treatment of lung and pleural diseases in children; 3.3.4 Conservative management strategies for congenital orthopedic conditions in pediatric patients; 3.3.5 Treatment approaches for children with various bone fractures and traumatic injuries; 3.3.6 Optimal surgical timing for children with congenital malformations; 3.3.7 Management strategies for pediatric patients with urological conditions; 3.3.8 Core principles of management for pediatric oncology patients; 3.3.9 Practical application of endovideo surgical technologies in the diagnosis and management of acute abdominal surgical pathology in children.	