

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Academic and Research Medical Institute

Кафедра хірургії, травматології, ортопедії та фтизіатрії

PEDIATRIC SURGERY

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council

Protocol dated _____ № _____

Chairman of the Quality Council

Petrashenko Viktoriia
Oleksandrivna

DATA ON REVIEWS AND APPROVAL

Author

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Ovechkin Denys Viacheslavovych

Review of the course descriptor	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>
Considered and approved at the meeting of the work group of Study programme Медицина	Protocol dated _____ № _____ Head of the work group (Head of the Study programme) _____ Prystupa Liudmyla Nykodymivna
Considered and approved at the meeting of the Кафедра хірургії, травматології, ортопедії та фтизіатрії	Protocol dated _____ № _____ Head of the Department _____ Duzhyi Ihor Dmytrovych

SYLLABUS

1. General information on the course

Full course name	Pediatric Surgery
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра хірургії, травматології, ортопедії та фтизіатрії
Author(s)	Korenkov Oleksii Volodymyrovych, Ovechkin Denys Viacheslavovych
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	18 weeks across 12 semester
Workload	1 ECTS, 30 hours. For full-time course 20 hours are working hours with the lecturer (20 hours of seminars), 10 hours of the individual study.
Language(s)	English

2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"
Prerequisites	Krok-1, Human Anatomy, Normal Physiology, Latin and Medical Terminology, Biological and Bioorganic Chemistry, Microbiology, Virology and Immunology, Pathomorphology, Pathophysiology, Clinical Pharmacology, Pediatric Infectious Diseases, General Surgery, Internal Medicine, Pediatrics, Urology, Traumatology and Orthopedics, Radiology
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

The purpose of the discipline is to acquire theoretical and practical knowledge in the diagnosis, treatment, and rehabilitation of patients with congenital pediatric surgical pathology in compliance with the principles of medical ethics and deontology.

4. Contents

<p>Topic 1 Congenital intestinal obstruction</p> <ul style="list-style-type: none"> • Intestinal Obstruction in the Neonate • Pyloric and Duodenal Obstruction • Jejunoileal Atresia and Stenosis • Hypertrophic Pyloric Stenosis • Meconium Ileus • Hirschsprung's Disease • Colonic Atresia • Anorectal Malformations • Gastrointestinal Duplications and Mesenteric Cysts
<p>Topic 2 Congenital defects of the abdominal wall</p> <ul style="list-style-type: none"> • Umbilical Anomalies • Inguinal Hernia and Hydrocele • Intestinal Malrotation and Volvulus • Abdominal Wall Defects (omphalocele and gastroschisis) • Gastroesophageal Reflux • Achalasia
<p>Topic 3 Congenital malformations of the genitourinary system</p> <ul style="list-style-type: none"> • CAKUT (congenital anomalies kidney and urinary tract): Renal agenesis, dysplasia, hypoplasia / Duplex kidney, Horseshoe kidney / Duplication of the ureter / Ectopic Ureter / Vesicoureteric reflux / Congenital Hydronephrosis / Ureterocele / Ectopic ureter • Cryptorchidism • Hypospadias • Varicocele • Bladder exstrophy • Phimosis
<p>Topic 4 Congenital malformations of the respiratory system</p> <ul style="list-style-type: none"> • Tracheoesophageal Fistula and Esophageal Atresia • Congenital diaphragmatic hernia • Congenital Malformations of the Trachea (Tracheomalacia, Stenosis, etc.) and the Larynx (Laryngomalacia) • Congenital pulmonary airway malformation (CPAM). Pulmonary sequestration (intralobar, extralobar). Congenital Lobar Emphysema. Bronchogenic cyst. Bronchial atresia.
<p>Topic 5 Congenital defects of the musculoskeletal system</p> <ul style="list-style-type: none"> • Developmental dysplasia of the hip (Hip dysplasia) • Club foot • Congenital muscular torticollis • Scoliosis • Chest wall malformations
<p>Topic 6 Graded test</p> <p>The final module control (Summative assessment)</p>

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Acquire the skills of interviewing and objective examination of the patient. Substantiate and apply clinical methods to understand the manifestations of surgical diseases in childhood.
LO2	Ability to determine the required set of laboratory and instrumental studies and to evaluate their results.
LO3	Ability to establish a provisional and clinical diagnosis of disease.
LO4	Ability to determine the necessary mode of work and rest in the treatment course.
LO5	Ability to determine a diet in the treatment course
LO6	Ability to determine the principles of treatment and treatment modality
LO7	Ability to diagnose medical emergencies.
LO8	Ability to determine the approach to emergency medical care.

LO9	Skills in emergency medical procedures.
LO10	Ability to conduct medical evacuation procedures.
LO11	Skills in performing medical procedures.
LO13	Ability to perform sanitary and preventive measures.
LO15	Ability to manage the patients who are subject to dispensary monitoring.
LO16	Ability to perform disability examination.
LO17	Ability to maintain medical records.
LO18	Ability to conduct epidemiological and medical-statistical research of public health; ability to process governmental, social, economic, and medical information.
LO19	Ability to assess the influence of environment, socio-economic and biological determinants on the health of a person, family, or population.

6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	Collect patient's complaint data, medical history, history of life (including occupational history) at a healthcare institution, its subdivision, or at patient's home, by means of a standard survey. Under any circumstances (at a healthcare institution, its subdivision, at patient's home, etc.), using knowledge about the person, his organs and systems, perform the following according to certain algorithms: collect information about the patient's general condition (consciousness, constitution) and appearance (examination of the skin, subcutaneous fat layer, palpation of lymph nodes, thyroid and mammary glands); assess the psychomotor and physical development of a child.
PO2	Evaluate information about diagnosis at a healthcare institution or its subdivision by means of a standard procedure using knowledge about a human, his organs and systems, based on the results of laboratory and instrumental studies (according to the List 4).
PO3	Perform the following at a healthcare institution or its subdivision and among the assigned population: Distinguish and register the leading clinical symptom or syndrome (according to the List 1) by making a reasonable decision, using the data of patient's history and physical examination, knowledge about a human, his organs and systems, and observing the relevant ethical and legal norms. Establish the most probable or syndromic diagnosis (according to the List 2) by making a reasonable decision and comparing with the standards, using the data of patient's history, physical examination, the leading clinical symptom or syndrome and knowledge about a human, his organs and systems, and observing the relevant ethical and legal norms.
PO4	Determine the necessary mode of work and rest in the treatment course (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis, using knowledge about a human, his organs and systems, observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.

PO5	Determine the necessary diet in the treatment course of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis, using knowledge about a human, his organs and systems and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO6	Determine the treatment mode (conservative, operative) for diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis, using knowledge about a human, his organs and systems and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures. Determine the treatment approach for diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis, using knowledge about a human, his organs and systems and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO7	Establish a diagnosis (according to the List 3) by making a reasonable decision based on evaluation of the person's state, using standard methods of physical examination and possible history data, the knowledge about a human, his organs and systems, and observing the relevant ethical and legal norms under any circumstances (at home, in the street, at a healthcare facility), including under emergency and military operation conditions, in the field, with a lack of information and limited time.
PO8	Determine the appropriate approach in emergency medical care case under any circumstances, using the knowledge about a human, his organs and systems and observing the relevant ethical and legal norms, by making a reasonable decision based on the medical emergency diagnosis (according to the List 3) using standard schemes under limited time conditions.
PO9	Provide emergency medical assistance under any circumstances, using the knowledge about a human, his organs and systems and observing the relevant ethical and legal norms, by making a reasonable decision based on the medical emergency diagnosis (according to the List 3) using standard schemes under limited time conditions.
PO10	Organize medical evacuation procedures among the population and the military under emergency conditions (including in the field), and during the phases of medical evacuation, given the existing system of medical evacuation provision.
PO11	Perform medical procedures (according to the List 5) at a medical facility, at home or at work by making a reasonable decision on the basis of a provisional clinical diagnosis and/or health parameters using the knowledge about a human, his organs and systems and observing the relevant ethical and legal norms.

PO13	Perform the following by making a reasonable decision at a healthcare institution, its subdivision, or in the workplace, using a generalized procedure for health assessment, knowledge about a human, his organs and systems, observing the relevant ethical and legal norms in the envisaged cohorts. Implement a system of preventive and disease control efforts at a healthcare institution or its subdivision, on the basis of health data of certain cohorts and the data of environmental influence on population, using existing methods within the primary public healthcare measures. Implement a system of primary prevention on the basis of health data of population serviced and the influence of determinants of health on the population, at a healthcare institution or outside it, using existing methods within the primary public healthcare measures
PO15	Perform the following at a healthcare institution or at patient's home using the knowledge about a human, his organs and systems and observing the relevant ethical and legal norms, by making a reasonable decision based on the patient health data: ? define the examination and secondary prevention in the patients who are subject to regular medical checkup; define the approach to examination and primary prevention in healthy people who are subject to regular medical checkup; determine and prescribe the necessary food for infants.
PO16	Detect disability and determine the degree of daily activity limitation, disability type, severity and duration as well as to maintain relevant documents at a healthcare institution on the basis of the data on disease course and professional activity of the person.
PO17	Perform the following at a healthcare institution or its subdivision: prepare annual reports on personal work activity using official accounting documents, in a generalized form; maintain medical records related to patients and cohorts (outpatient/inpatient records, medical history, individual pregnancy record, prenatal record, birth history, sanatorium and health resort card form, temporary disability leave, sociomedical assessment documentation, etc.), using standard technique based on regulations.
PO18	Perform the following within the assigned district according to standard methods of descriptive, analytical epidemiological and medical-statistical studies: screen for the most important non-infectious diseases; evaluate morbidity, including that of chronic non-infectious diseases, disability, mortality, and integrated health indicators both over time and in comparison with average data; identify risk factors for disease development and course; form population risk groups. Be able to do the following under any circumstances using standard procedures, including modern computer information technology: determine the source and/or location of the required information depending on its type; obtain the necessary information from the source; analyze the information received.
PO19	Perform the following at a healthcare institution or its subdivision using standard procedures: identify negative environmental factors based on the data of the sanitary-preventive institution by comparing the data with the existing norms and standards; analyze health status of a certain cohort on the basis of official data by comparing the data with average indicators; detect associations between environment and health status of a cohort based on the available data; develop preventive measures based on the data of association between environment and health status of a cohort. Perform morbidity analysis of population by distinguishing risk groups, risk areas, risk time, and risk factors at a healthcare facility or its subdivision using statistical and laboratory methods

7. Soft Skills

SS1	Ability to abstract thinking, analysis, and synthesis.
SS2	Ability to learn and master modern knowledge.
SS3	Ability to apply knowledge in practice.
SS4	Knowledge and understanding of the subject area and professional activity comprehension.
SS5	Ability to adapt and act in a new situation.
SS6	Ability to make reasoned decisions.
SS7	Ability to work as a team member.
SS8	Interpersonal skills.
SS9	Skills in information and communication technologies.
SS10	Determination and persistence on the tasks and commitments undertaken.

8. Teaching and learning activities

Topic 1. Congenital intestinal obstruction
pr.tr.1 "Congenital intestinal obstruction" Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Intestinal Obstruction in the Neonate • Pyloric and Duodenal Obstruction • Jejunoileal Atresia and Stenosis • Hypertrophic Pyloric Stenosis The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.
pr.tr.2 "Congenital intestinal obstruction" Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Meconium Ileus • Hirschsprung's Disease • Colonic Atresia • Anorectal Malformations • Gastrointestinal Duplications and Mesenteric Cysts The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.
Topic 2. Congenital defects of the abdominal wall
pr.tr.3 "Congenital defects of the abdominal wall" Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Umbilical Anomalies • Inguinal Hernia and Hydrocele • Intestinal Malrotation and Volvulus Study this topic involves theoretical work in the classroom, the use of virtual simulation with further discussion. If possible, work at the patient's bedside in the relevant departments of the medical institution (according to the cooperation agreement between medical institution and university).

pr.tr.4 "Congenital defects of the abdominal wall"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Omphalocele and Gastroschisis • Gastroesophageal Reflux • Achalasia. Study this topic involves theoretical work in the classroom, the use of virtual simulation with further discussion. If possible, work at the patient's bedside in the relevant departments of the medical institution (according to the cooperation agreement between medical institution and university).

Topic 3. Congenital malformations of the genitourinary system

pr.tr.5 "Congenital malformations of the genitourinary system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • CAKUT (congenital anomalies kidney and urinary tract): Renal agenesis, dysplasia, hypoplasia / Duplex kidney, Horseshoe kidney / Duplication of the ureter / Ectopic Ureter / Vesicoureteric reflux / Congenital Hydronephrosis / Ureterocele / Ectopic ureter. Topics include theoretical work in the classroom, work in the simulation center with further discussion. If possible, work at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

pr.tr.6 "Congenital malformations of the genitourinary system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Cryptorchidism • Hypospadias • Varicocele • Bladder exstrophy • Phimosis Topics include theoretical work in the classroom, work in the simulation center with further discussion. If possible, work at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university).

Topic 4. Congenital malformations of the respiratory system

pr.tr.7 "Congenital malformations of the respiratory system and diaphragm defects"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Tracheoesophageal Fistula and Esophageal Atresia • Congenital diaphragmatic hernia • Congenital Malformations of the Trachea (Tracheomalacia, Stenosis, etc.) and the Larynx (Laryngomalacia) • Congenital lung malformations. In addition, the study of this topic involves the acquisition of practical skills of palpation, percussion, and auscultation at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university). Interpretation of the results of laboratory and instrumental methods of examination, preparation of a treatment plan.

pr.tr.8 "Congenital malformations of the respiratory system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Congenital pulmonary airway malformation (CPAM): Pulmonary sequestration (intralobar, extralobar) / Congenital Lobar Emphysema / Bronchogenic cyst / Bronchial atresia In addition, the study of this topic involves the acquisition of practical skills of palpation, percussion, and auscultation at the patient's bedside in the specialized departments of the medical institution (according to the agreement on cooperation between the medical institution and the university). Interpretation of the results of laboratory and instrumental methods of examination, preparation of a treatment plan.

Topic 5. Congenital defects of the musculoskeletal system

pr.tr.9 "Congenital defects of the musculoskeletal system"

Definition, classification, etiology, pathogenesis, clinical presentation, diagnosis, treatment from the standpoint of evidence-based medicine: • Developmental dysplasia of the hip (Hip dysplasia) • Club foot • Congenital muscular torticollis • Scoliosis The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions, work at the patient's bedside. Using a virtual simulation (watching movies) with further discussion.

Topic 6. Graded test

pr.tr.10 "Graded test"

The final module control (Summative assessment). Evaluation of written works, surveys, solving a clinical case. Test. The expertise of an individual research project (incentive activities, additional points).

9. Teaching methods

9.1 Teaching methods

Course involves learning through:

TM1	Case-based learning
TM2	Team Based Learning
TM3	Research Based Learning
TM4	Practical training
TM5	Self-study
TM6	Electronic learning

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which contribute not only to the development of professional skills, but also stimulate creative and scientific activities and are aimed at training practice-oriented professionals.

Acquisition of soft skills by students is carried out during the entire period of studying the discipline. The ability for analytical and critical thinking, teamwork, perseverance is formed during team-, practice-, and case-oriented training, knowledge and understanding of the subject area is acquired during practical classes and self-study. Inquiry-based learning encourages the development of certainty and persistence in tasks and responsibilities.

9.2 Learning activities

LA1	Interpretation of laboratory (clinical blood, urine, biochemical blood analysis, etc.) and instrumental (EGD, ultrasound, CT, X-ray, etc.) examination methods
LA2	Preparation for practical classes
LA3	Analysis of clinical cases
LA4	Practical work with the patient in specialized departments of the hospital
LA5	Electronic training in systems (Zoom, Meet, Mix SumDU)
LA6	Individual research project (student research paper, article, theses, etc.)
LA7	Work with textbooks and relevant information sources
LA8	Preparation for Graded test

10. Methods and criteria for assessment

10.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	$170 \leq RD \leq 200$
Above the average standard but with minor errors	4 (Good)	$140 \leq RD < 169$
Fair but with significant shortcomings	3 (Satisfactory)	$120 \leq RD < 139$
Fail – some more work required before the credit can be awarded	2 (Fail)	$0 \leq RD < 119$

10.2 Formative assessment

	Description	Deadline, weeks	Feedback
FA1 Peer assessment	Partnership interaction aimed at improving the results of educational activities by comparing one's own current level of success with previous indicators. Provides an opportunity to analyze one's own educational activities.	During the entire period of studying the discipline	Adjustment together with students of approaches to learning, taking into account the results of the assessment

<p>FA2 Survey and teacher's oral comments based on his results</p>	<p>It provides an opportunity to identify the state of educational experience acquired by students in accordance with the set goals, to find out the prerequisites for the state of formation of the obtained results, the causes of difficulties, to adjust the learning process, to track the dynamics of the formation of learning results and to forecast their development.</p>	<p>During the entire period of studying the discipline</p>	<p>According to the obtained data on the results of training, based on their analysis, it is proposed to determine the evaluation as an indicator of the achievements of the educational activities of the applicants</p>
<p>FA3 Tests (automated tests) to control the educational achievements of applicants</p>	<p>A method of effective verification of the level of assimilation of knowledge, abilities and skills from each subject of an educational discipline. Testing allows you to check the assimilation of educational material from each subject.</p>	<p>During the entire period of studying the discipline</p>	<p>The student must provide at least 60% of the correct answers</p>
<p>FA4 Consulting the teacher during the preparation of an individual research project (speech at a conference, competition of scientific papers)</p>	<p>An important factor in the formation of professional qualities of future specialists is the research work of students. Involvement of the latter in research activities contributes to the formation of their scientific worldview, industriousness, work capacity, initiative, etc.</p>	<p>During the entire period of studying the discipline</p>	<p>Teacher's oral comments. The student is given additional incentive points (from 5 to 10), depending on the type of research project</p>
<p>FA5 Solving clinical cases</p>	<p>The case method makes it possible to reveal and form the qualities and abilities of medical students necessary for further work, forms clinical thinking, analytical abilities, independence in decision-making, communication, skills for working with a sufficiently large amount of information.</p>	<p>During the entire period of studying the discipline</p>	<p>Assessment of the student's ability to think clinically, justify their decisions, clearly express their opinions, determine the level of theoretical training, which is reflected in the corresponding assessment</p>

<p>FA6 Instructions of the teacher in the process of performing practical tasks</p>	<p>The guidelines reveal the methods of pedagogical control over the professional activities of applicants. Efficiency is determined by compliance with all stages of practical tasks. The effectiveness of the formation of the necessary practical skills and abilities depends on the level of formation of practical competence.</p>	<p>During the entire period of studying the discipline</p>	<p>Counseling of students in working with a standardized patient, direct and indirect observation of the work of applicants "at the bedside" of the patient with subsequent determination of the level of practical training</p>
<p>FA7 The task of assessing the level of theoretical training</p>	<p>Assessment of acquired theoretical knowledge on the subject of the discipline. It is conducted at each practical session in accordance with the specific goals of each topic based on a comprehensive assessment of the student's activity, which includes monitoring the level of theoretical training, performing independent work according to the thematic plan</p>	<p>During the entire period of studying the discipline</p>	<p>Feedback is aimed at supporting students' independent work, identifying shortcomings and assessing the level of acquired theoretical knowledge</p>
<p>FA8 Assessing the level of practical training</p>	<p>Assessment of acquired practical skills in the subject of the discipline. It is conducted at each practical lesson in accordance with the specific goals of the topic on the basis of a comprehensive assessment of the student's practical activity, which includes monitoring the level of practical training, performing independent work according to the lesson plan.</p>	<p>During the entire period of studying the discipline</p>	<p>Feedback is aimed at supporting students' independent work, identifying shortcomings and assessing the level of acquired practical skills</p>

10.3 Summative assessment

	Description	Deadline, weeks	Feedback
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SA1 Graded test	Compilation of practice-oriented differentiated assessment. Candidates who have successfully mastered the material of the discipline and scored at least 72 points in the studied discipline are allowed to take the differentiated assessment.	According to the schedule	The applicant can receive 80 points for differential assessment. The minimum number of points a student must receive is 48 points.
SA2 Current evaluation of the level of theoretical and practical knowledge	It includes an oral interview, solving clinical cases, ongoing testing, working at the patient's bedside, virtual simulation, working in a simulation center, interpreting the results of laboratory and instrumental methods of examination and drawing up a treatment plan. Students who are involved in research activities have the opportunity to present the results of their own research at conferences, student research competitions, etc. (incentive activities, additional points).	During the entire period of studying the discipline	At each lesson, the result of the educational assignments performance affects the comprehensive assessment for the practical lesson

Form of assessment:

	Points	Minimum points	Можливість перескладання з метою підвищення оцінки
12 semester	200 scores		
SA1. Graded test	80		
Answers to theoretical and practical questions	60	48	No
Computer testing	20	12	No
SA2. Current evaluation of the level of theoretical and practical knowledge	120		
Oral interview, solving clinical cases, ongoing testing, working at the patient's bedside, virtual simulation, working in a simulation center, interpreting the results of laboratory and instrumental examination methods, drawing up a treatment plan.	120	72	No

The assessment rests on a 200-point scale and its correlation with the ECTS and the national (four-point) scales. When mastering the materials of the student's discipline, a maximum of 5 points is assigned for each practical lesson (the grade is set in the traditional 4-point grading system). At the end of the discipline is calculated arithmetic mean of student performance. The maximum number of points for the current educational activities of the student - 120, for Graded Test - 80. The student is admitted to the test provided that the requirements of the curriculum are met and if he/she has scored at least 72 points for the current academic activity. Differentiated credit is made according to the schedule at the end of teaching the discipline. The Graded Test is credited to the

student if he scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project 3 points. The total score in the discipline may not exceed 200 points. Applicants for higher education can get additional points as the results of non-formal education activities for writing scientific works, Olympiads, participating in conferences and competitions of student research papers (according to "The regulation on the educational results reevaluation at Sumy State University, obtained in non-formal education").

11. Learning resources


11.1 Material and technical support

MTS1	Information and communication systems
MTS2	Library funds, archive of radiographs, spiograms, electrocardiograms, computer tomograms, laboratory results
MTS3	Computers, computer systems and networks
MTS4	Simulation center (phantom child for emergency care with a set of equipment)
MTS5	Sumy Regional Children's Clinical Hospital
MTS6	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, laptop screens)
MTS7	Software (to support distance learning)
MTS8	Medical equipment (pulse oximeter, tonometer, phonendoscope, etc.)

11.2 Information and methodical support

Essential Reading	
1	P. Puri. Pediatric Surgery. General Principles and Newborn Surgery / Springer, 2020. – 1294 p.
2	Holcomb G. W., Rothenberg S. S. Atlas of Pediatric Laparoscopy and Thoracoscopy. Elsevier, 2021. – 290 p.
3	Mark Davenport, James D. Geiger. Operative Pediatric Surgery. 8th Edition – CRC Press, 2020. – 928 p.
4	Ahmed H. Al-Salem. Atlas of Pediatric Surgery. Principles and Treatment. – Springer, 2020. – 910 p.
Supplemental Reading	
1	Ashcraft's pediatric surgery. 7th edition / George Holcomb J. Patrick Murphy Shawn St Peter (Eds.) – Elsevier, 2019. – 1316 p.
2	Pediatric Surgery : textbook / V.A. Dihtiar, V.I. Sushko, D.Yu. Kryvchenia et al.; edited by V.A. Dihtiar, V.I. Sushko, D.Yu. Kryvchenia. — Kyiv : AUS Medicine Publishing, 2019. — 368 p. + 14 p. colour insert.
3	Sameh Shehata. Pediatric Surgery, Flowcharts and Clinical Algorithms. – IntechOpen, 2019. – 168 p.

4	Ovechkin D, Awuah WA, Wellington J, et al. Intestinal intussusception in a child with Peutz-Jeghers syndrome: case report. Ann Med Surg (Lond). 2023;85(5):2216-2220.
5	Ovechkin D.V., Leonov V.V., Ovechkin V.S. “Pediatric Surgery: Urgent Surgery and Pediatric Oncology”. Tutorial book. – 2014. – 445 p.
6	Riabenko T. V., Korenkov O.V., Dmytruk S.M., Yarmolenko O. S., Ponyrko A. O, Pernacov M. S., Hula V. I. Morphological feature of tubular bones reparative regeneration under the influence of antitumor chemotherapeutics. Wiadomo?ci Lekarskie (Warsaw, Poland : 1960), 2022; 75(3), P. 570–576.
Web-based and electronic resources	
1	https://emedicine.medscape.com/pediatrics_surgery
2	http://www.uptodate.com
3	http://accessmedicine.mhmedical.com
4	https://websurg.com/en/search/?q=Pediatric%20surgery
5	https://pubmed.ncbi.nlm.nih.gov/
6	https://www.nucleusmedicalmedia.com
7	https://www.osmosis.org/library/md/clerkships/pediatrics#pediatric_medicine_and_surgery
8	https://ocw.sumdu.edu.ua/content/985

	<p style="text-align: center;">UNIVERSITY POLICIES FOR THE COURSE «Pediatric Surgery»</p> <p>Higher education level The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle Major: Educational programme 222 Medicine: Medicine Year of study 2023 Semester 12 semester Mode of study full-time course Language of instruction English</p>
Teacher(s)	Korenkov Oleksii Volodymyrovych, Ovechkin Denys Viacheslavovych
Contact	Ovechkin Denys Viacheslavovych PhD, Associate Professor Department of Surgery, Traumatology, Orthopedics and Phthisiology e-mail: d.ovechkin@med.sumdu.edu.ua
Time and room for giving consultations	Sumy Regional Children's Clinical Hospital, every Thursday 16:00-17:30
Links to online educational platforms	https://ocw.sumdu.edu.ua/content/985 https://testkrok.org.ua/
Syllabus	https://pg.cabinet.sumdu.edu.ua/report/syllabus/6de96dfcc465fa47e50287ffbf56488b3277707
Channels for maintaining contact with the group for receiving and working on materials	Sumy State University personal account, mix.sumdu.edu.ua, e-mail, Viber

POLICIES

Academic integrity policy

Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain plagiarism, facts of fabrication, falsification, cheating. Manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a teacher reveals violations of academic integrity by students during the course, the former have the right to take one of the following actions: - to reduce points by up to 40% for practical assignments; - to give recommendations for improving and resubmitting mandatory homework assignments with the reduction of points by up to 25%; - to not accept mandatory homework assignments without the right to resubmit; - set a date for retaking the written module or the summative test with a reduction of points by up to 15%; - to not allow to retake the written module or the summative test.

Політика щодо використання інструментів штучного інтелекту при виконанні завдань навчальної дисципліни

Політика використання інструментів штучного інтелекту (ChatGPT, Tome тощо) оголошується викладачем на початку курсу.

Використовувати інструменти штучного інтелекту для підготовки робіт, визначених силабусом та регламентом навчальної дисципліни дозволено для усіх завдань або їх частин. Факт використання

інструментів штучного інтелекту обов'язково зазначається у завданні.

Несанкціоноване використання інструментів штучного інтелекту є порушенням академічної доброчесності.

Політика щодо використання матеріалів з джерел відкритого доступу

При використанні здобувачами освіти матеріалів з джерел відкритого доступу для підготовки робіт, визначених силабусом та регламентом навчальної дисципліни, вони обов'язково мають дотримуватись умов ліцензій Creative Commons на використання об'єктів авторського права.

Attendance policy

The student must attend 100% of the practical classes. In case of skipping classes, the student must work off the missed classes in accordance with the schedule of work approved by the department.

Deadlines and course retake policy

In case of the insufficient number of points for current classes, students have the opportunity to take the test by preparing for the main questions of the discipline (list of questions on the site or from the teacher) and pass the "Admission" to the test by answering 3 random questions from the above list. The student has 3 attempts to pass the "Admission" with an interval of preparation of at least two days. Thus the third (last) attempt of "Admission" is carried out only in the presence of the head of the department. In case the student received an unsatisfactory grade on the differentiated test, he must rearrange it in the form of a survey and solve a clinical case. The student must reschedule the test before the beginning of the next semester. The student has 3 attempts to retake the test according to the schedule approved by the department. The student has the right to receive an explanation of the grade obtained.

Assessment appeals policy

The results of the module and semester assessment are subject to appeal. A student must lodge an appeal to the director/dean on the day of certification or after announcing the results, but no later than the next working day. The appeal commission is established by the director/dean's order. The appeal commission's decision may change the grade in case of violations revealed during the attestation.

Assessment criteria

Assessment policy

The assessment rests on a 200-point scale and its correlation with the ECTS and the national (four-point) scales. When mastering the materials of the student's discipline, a maximum of 5 points is assigned for each practical lesson (the grade is set in the traditional 4-point grading system). At the end of the discipline is calculated arithmetic mean of student performance. The maximum number of points for the current educational activities of the student - 120, for Graded Test - 80. The student is admitted to the test provided that the requirements of the curriculum are met and if he/she has scored at least 72 points for the current academic activity. Differentiated credit is made according to the schedule at the end of teaching the discipline. The Graded Test is credited to the student if he scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project 3 points. The total score in the discipline may not exceed 200 points. Applicants for higher education can get additional points as the results of non-formal education activities for writing scientific works, Olympiads, participating in conferences and competitions of student research papers (according to "The regulation on the educational results reevaluation at Sumy State University, obtained in non-formal education").

Alignment of learning outcomes with teaching and learning activities and assessment

For 222 Medicine:

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO1	LO1	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS8	SA1, SA2
PO2	LO2	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS7, MTS8	SA1, SA2
PO3	LO3	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS7, MTS8	SA1, SA2
PO4	LO4	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6	SA1, SA2
PO5	LO5	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS6	SA1, SA2
PO6	LO6	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6	SA1, SA2
PO7	LO7	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS7, MTS8	SA1, SA2

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO8	LO8	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6	SA1, SA2
PO9	LO9	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS8	SA1, SA2
PO10	LO10	pr.tr.1, pr.tr.2	LA3, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS6	SA1, SA2
PO11	LO11	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA1, SA2
PO13	LO13	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS6	SA1, SA2
PO15	LO15	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA4, LA6, LA1, LA8, LA2, LA7	TM2, TM3, TM4, TM5	MTS1, MTS2, MTS3, MTS6	SA1, SA2
PO16	LO16	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7	TM1, TM2, TM3, TM4, TM5	MTS1, MTS2, MTS3, MTS6	SA1, SA2
PO17	LO17	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA4, LA2, LA7, LA5	TM2, TM5, TM6	MTS1, MTS2, MTS3, MTS5, MTS6, MTS7	SA2
PO18	LO18	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7	TM1, TM2, TM3, TM4, TM5	MTS1, MTS2, MTS3, MTS6	SA1, SA2

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO19	LO19	pr.tr.1, pr.tr.2, pr.tr.3, pr.tr.4, pr.tr.5, pr.tr.6, pr.tr.7, pr.tr.8, pr.tr.9	LA3, LA4, LA6, LA1, LA8, LA2, LA7, LA5	TM1, TM2, TM3, TM4, TM5, TM6	MTS1, MTS2, MTS3, MTS6	SA1, SA2